Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0206313M *I Marine Corps Comms Systems*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	1,763.434	119.982	192.625	145.343	-	145.343	147.074	135.238	122.559	126.006	Continuing	Continuing
2270: *Exp Indirect Fire Gen Supt Wpn Sys*	407.017	25.765	55.653	42.039	-	42.039	37.992	36.795	36.929	37.723	Continuing	Continuing
2273: *Air Ops Cmd & Control (C2) Sys*	468.846	13.980	15.473	11.554	-	11.554	9.816	9.479	9.077	9.267	Continuing	Continuing
2274: *Command & Control Warfare Sys*	108.980	28.236	22.969	13.064	-	13.064	23.860	22.330	19.936	21.027	Continuing	Continuing
2275: *Marine Corps Tactical Radio Systems*	107.110	17.352	47.985	35.173	-	35.173	29.982	25.895	17.309	17.661	Continuing	Continuing
2276: *Comms Switching and Control Sys*	58.533	2.816	1.008	2.955	-	2.955	2.224	1.703	1.737	1.773	Continuing	Continuing
2277: *System Engineering and Integration*	49.279	4.529	17.846	14.629	-	14.629	9.503	6.359	6.352	6.486	Continuing	Continuing
2510: *MAGTF CSSE & SE*	290.962	0.941	1.021	1.019	-	1.019	1.039	1.056	1.077	1.100	Continuing	Continuing
3099: *Radar System*	230.177	1.023	4.028	3.626	-	3.626	3.460	3.480	3.507	3.581	Continuing	Continuing
3270: *Sec. 2912 Operational Energy Savings*	0.776	12.092	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	12.868
3772: *Information Related Capabilities (IRC)*	15.681	4.989	17.672	14.856	-	14.856	18.681	17.988	17.332	17.890	Continuing	Continuing
3773: *Fire Coordination and Sensors*	26.073	8.259	8.970	6.428	-	6.428	10.517	10.153	9.303	9.498	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element provides funding to develop the command and control (C2) support and information infrastructures for the Fleet Marine Force and supporting establishment. Doctrinally, the C2 support system and the information infrastructure form two parts of a triad of capabilities which permits command and control systems to be transformed into a complete operating system. The third element of the triad is command and control organization and is not covered in this program element. USMC command and control is divided into seven functional areas and one supporting functional area as follows: intelligence C2, fire support C2, air operations C2, radio systems C2, combat service support C2, warfare C2, radar systems C2, and C2 support (information processing and communications).

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy	Date: March 2024
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0206313M *I Marine Corps Comms Systems*

Within this program element, subprojects have been grouped by C2 functional area for more efficient planning. Air defense weapons systems have been added to facilitate planning and a separate project is used for systems assigned to the supporting establishment. Subprojects which support the Commander's decision processes have been collected into the Command Post Systems project since these systems must work in close cooperation to ensure effective C2 of Marine Air Ground Task Forces.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	114.264	192.625	162.434	-	162.434
Current President's Budget	119.982	192.625	145.343	-	145.343
Total Adjustments	5.718	0.000	-17.091	-	-17.091
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	9.041	0.000			
• SBIR/STTR Transfer	-3.323	0.000			
• Program Adjustments	0.000	0.000	-3.273	-	-3.273
• Rate/Misc Adjustments	0.000	0.000	-13.818	-	-13.818

Change Summary Explanation

Decrease from Previous President's Budget is primarily attributed to the following:

- Command & Controls Warfare Sys Project 2274: Marine Electromagnetic Warfare Ground Family of Systems (MEGFoS) decrease of $8.046M due to completion of the development of networking capability for dismounted and team portable systems, and completion of the development and integration of the initial MEGFoS mounted and dismounted capabilities.

- Information Related Capabilities (IRC) Project 3772: Signature Management (SIGMAN) decrease is due to higher Department of the Navy (DON) priorities, and impacts YETI. Details are held at a higher classification.

- Fire Coordination and Sensors Project 3773: Advanced Field Artillery Tactical Data System (AFATDS) decrease is due to conclusion of AFATDS v6.8.1.4 SW development to support Marine Corps-specific GBASM requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*				Project (Number/Name) 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
2270: *Exp Indirect Fire Gen Supt Wpn Sys*	407.017	25.765	55.653	42.039	-	42.039	37.992	36.795	36.929	37.723	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Secure Expeditionary Resilient Positioning, Navigation and Timing (SERPNT) (formerly REPNT) - This is a critical Marine Corps Force Design program. Program efforts are focused on increasing the resiliency and assurance of Positioning, Navigation, and Timing (PNT) capabilities across the enterprise. This enables Marine Air-Ground Task Force (MAGTF) Commanders to know and trust position, effectively navigate, and receive precise and accurate timing for users, platforms, and systems across warfighting functions. Current SERPNT efforts will enable the Marine Corps to transition to a smaller form factor of Military Code (M-Code) GPS signal receivers through participation in Space Force-led Increment II technology maturation efforts. Program Office will research, assess, and integrate resilient and assured PNT alternative capabilities which will mitigate threats from peer and near peer adversaries to meet Force Design 2030, EABO, and Joint All-Domain Command and Control (JADC2) construct.

Marine Air-Ground Task Force (MAGTF) Command and Control (C2) Systems (MAGTF C2) - MAGTF C2 Tactical Service Oriented Architecture (TSOA) is an ACAT IV(M) program of record (POR). TSOA was created in order to achieve agility and greater cost reduction across the USMC Command and Control (C2) Enterprise. This POR has been identified by the USMC Combat Development and Integration (CD&I) as the USMC's Service Oriented Infrastructure (SOI) designed to support the Objective Network as defined by the Headquarters Marine Corps, Deputy Commandant for Information Network Modernization Plan. The USMC seeks to rectify its current C2 architecture, which is composed of disparate and duplicative legacy systems through TSOA. TSOA will enable a collapse of this disparate C2 construct and create a Net-Centric environment where Marines employ user-centered applications that access required information across Authoritative Data Sources (ADS). This will be achieved through the CD&I directed TSOA compliance effort in order to reduce duplicative product development and enable a divestiture of legacy disparate systems. This requires additional effort to ensure other ADS's are compliant with the TSOA product line.

TSOA's purpose is to ensure that Marines receive the right information, from trusted and accurate sources, when and where it is needed. This enables decisions "in context" for USMC operations across the Range of Military Operations and in support of the Unified Command Plan. TSOA's four capabilities include: Infrastructure and Services (I&S) which is the capability of authorized users to subscribe and publish required information from ADS with the use of software connectors; Agile Application Development (A2D) which is the capability to develop, accredit, and provide easy-to-learn, user-defined software applications that meet emergent Marine needs; Modular Software Architecture (MSA) which is virtualized, hardware agnostic, and scalable; Marine Corps Software Resource Center (MCSRC) is the Marine Corps' enterprise "App Store" for developed applications that allows Marines the ability to download, review, rate, and provide feedback.

Identity Dominance System - Marine Corps (IDS-MC) and Forensics Dominance System - Marine Corps (FDS-MC) is now known as ID & Attribution Activities (IA2) FoS effective FY25.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

The Identity and Attribution Activities (IA2) Family of Systems (FoS) provides the MAGTF organic, operational collection and exploitation capabilities that enable the application of biometrics, forensics, and identity management activities that center on the collection of identity attributes and physical materials. This processing and exploitation informs all-source analytic efforts and is an enabler for intelligence, force protection and law enforcement to aid in the identification, capture, prosecution and targeting of individuals and networks. The Identity Dominance System - Marine Corps (IDS-MC) delivers on-scene biometrics & identity management capabilities through a multi-modal (fingerprint, iris, face) system and provides the ability to rapidly collect, match, store, and share biometric and biographic data. The Forensics Dominance System - Marine Corps (FDS-MC) provides the means to rapidly conduct expeditionary tactical collection and exploitation of captured material (cell phones, computers, chemicals, DNA, drones, documents, fingerprints, firearms, etc), enabling the identification and linking of individuals, places, things, activities, organizations, and events. Department of the Navy Identification and Screening Information System (DONISIS) portal connectivity enables data submission and follow-on reach-back analysis/intelligence support by MCIA's Identity Intelligence Analysts.

Handheld Command and Control (H2C2) - Provides the dismounted user the to tactical edge, with handheld devices that provides integrated, on-the-move, secure, timely, and relevant Command & Control/Situational Awareness (C2/SA) information to tactical combat, combat support and combat service support commanders, leaders, and key C2 nodes. H2C2 provides leaders with a capability for selecting, managing, and assimilating relevant data and information. This allows them to pass orders and graphics that will provide the joint warfighter the capability to visualize the commander's intent and scheme of maneuver, and provide enhanced SA of friendly, reported enemy, neutral, and civilian entities.

MOBILE ALL-DOMAIN OBSERVATION AND SENSING SYSTEM (MA-DOSS) FoS provides persistent, all-domain sensing and surveillance support, tactical early warning, multi-domain intrusion-detection, and forward edge processing/computing of an AI/ML based computer vision capability to the Fleet Marine Force (FMF), at the Marine Littoral Regiment (MLR), down to any sized Marine element, in order to support the Naval Expeditionary Force (NEF) in the conduct of Sea Denial and Sea Control operations, and to enable force protection for expeditionary advanced bases (EABs), forward fixed sites, and installations. By providing mobile, expeditionary, amphibious, modular, multi-spectral, and persistent surveillance systems based on sensor agnostic unmanned platforms, the MA-DOSS FoS will provide the ability to observe, collect, detect, classify, identify, track, record, and report on contacts, objects of interest, and assess threats twenty-four hours a day utilizing a fused sensor data display while reducing manpower requirements and the cognitive workload on operators and analysts. MA-DOSS will employ advanced Human Machine Teaming (HMT) and leverage the force-multiplying capabilities of Artificial Intelligence/Machine Learning (AI/ML) to execute tasks that normally require human intelligence/ interface. Additionally, increased mobility will be achieved with autonomous robotic platforms, thereby enhancing survivability of the primary system and stand-in forces operating inside adversary weapon engagement zones (WEX). Beginning FY 2024 MA-DOSS transitions to PE: 0206313M Marine Corps Comms Systems Proj: 2270 Exp Indirect Fire Gen Supt Wpn Sys. MA-DOSS was previously funded in PE 0206625M, Project 2272 in FY 2023.

The Marine Corps Joint Battle Command Platform (JBC-P) - The JBC-P Family of Systems (FoS) is a joint, digital, battle command information FoS that provides enhanced map imagery and integrated, on-the-move, timely, and relevant Command and Control (C2)/Situational Awareness (SA) information to tactical combat, combat support, and combat service support commanders, leaders, and small unit leaders. JBC-P FoS provides enhanced SA at the mounted platform and command post level across the Services of friendly and reported enemy, neutral, and civilian entities (including reported international agencies and Non-Governmental Organizations). JBC-P FoS is interoperable with joint C2 systems and enables joint SA and Battlespace awareness. The U.S. Army is the Lead Service, and the U.S. Marine Corps (USMC) JBC-P FoS operates under an Authority to Participate with the U.S. Army.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: MAGTF C2: Product Development	10.592	21.375	18.240	0.000	18.240
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue initial Development, Security, and Operations (DevSecOps) environment for development and delivery of TSOA. - Continue harvesting cloud data, which enables higher fidelity Machine Learning (ML) models. This will enable future Cognitive Assistants. - Continue MCSRC support for USMC Common Handheld devices for lightweight applications. - Continue improvements to the federation and data correlation services to support COP/CTP across the MAGTF/JTF. - Complete requirements for the addition of operation within a DevSecOps environment which is a cultural approach to automate the integration of security at every phase of the software development life-cycle, from initial design through integration, testing, deployment, and software delivery. - Initiate alignment of TSOA capabilities focused on AI/ML within JADC2.					
FY 2025 Base Plans: -Continue refining Development, Security, and Operations (DevSecOps) environment for development and delivery of TSOA. -Continue to enhance federation and data correlation services to support COP/CTP across MAGTF/JTF. -Continue harvesting cloud data to enable future Machine Learning models and cognitive assistants. -Continue to align the TSOA Capabilities to position for AI/ML within JADC2. -Refine requirements for the addition of operation within a DevSecOps environment which automates the integration of security at every phase of software development life-cycle from initial design through integration, testing, deployment and software delivery.					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease of $3.135M from FY24 to FY25 is due to completing establishment of DevSecOps environment in support of AI/ML development within JADC2.					
Title: MAGTF C2: Support Costs	1.543	1.600	1.500	0.000	1.500
Articles:	-	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
FY 2024 Plans: - Continue system engineering support for system integration, configuration management, and technical assessments of TSOA software products. - Complete requirements for the addition of operation within a DevSecOps environment which is a cultural approach to automates the integration of security at every phase of the software development life-cycle, from initial design through integration, testing, deployment, and software delivery. -Initiate engineering support TSOA capabilities focused on AI/ML within JADC2. ***FY 2025 Base Plans:*** - Continue system engineering support for system integration, configuration management, and technical assessments of TSOA software products. -Continue engineering support TSOA capabilities to position for AI/ML within JADC2. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease of $0.100M from FY24 to FY25 is due to reduced engineering support required for AI/ML within JADC2.					
Title: MAGTF C2: Test and Evaluation	2.789	3.730	3.330	0.000	3.330
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue TSOA compliance testing with USMC Tactical Data Systems (TDS). - Continue to participate in technical working groups in support of test and engineering. - Continue to provide technical assistance to other programs supported by MCTSSA that involve the use of these systems as well as through the OFTSSC trouble calls. - Continue test and evaluation procedures for operations within a DevSecOps environment for TSOA. - Complete requirements for the addition of operation within a DevSecOps environment which is a cultural approach to automates the integration of security at every phase of the software development life-cycle, from initial design through integration, testing, deployment, and software delivery.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Initiate test and evaluation of TSOA capabilities within the JADC2 construct. ***FY 2025 Base Plans:*** -Continue TSOA compliance testing with USMC Tactical Data Systems (TDS). - Continue to participate in technical working groups in support of test and engineering. - Continue to provide technical assistance for interoperability across other programs supported by MCTSSA to include OFTSSC trouble calls. - Continuing to refine requirements for operating within a DevSecOps environment which automates the integration of security at every phase of the software development life-cycle, from initial design through integration, testing, deployment, and software delivery. - Continue automating test and evaluation procedures for operations within a DevSecOps environment for TSOA. - Continue test and evaluation of TSOA capabilities within the JADC2 construct. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease of $0.400M from FY24 to FY25 is due to reducing testing support of AI/ML within JADC2.					
Title: MAGTF C2: Management Services	1.757	1.810	1.760	0.000	1.760
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue to receive software engineering support to provide appropriate government direction in design and development of software, conduct of source code reviews, and prime vendor oversight from FFRDC. - Continue the examination and prototyping of AI applications for USMC tactical commanders. - Continue requirements for the addition of operation within a DevSecOps environment which is a cultural approach to automates the integration of security at every phase of the software development lifecycle, from initial design through integration, testing, deployment, and software delivery. ***FY 2025 Base Plans:*** - Continue to receive software engineering support to provide appropriate government direction in software design and development, conduct source code reviews, and prime vendor oversight from FFRDC.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Continue the examination and prototyping of AI applications for USMC tactical commanders. - Continue refining requirements for the addition of operation within a DevSecOps environment which automates the integration of security at every phase of the software development lifecycle, from initial design through integration, testing, deployment, and software delivery. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease of $0.050M from FY24 to FY25 is due to reduced management services required for design and development of software, code reviews and vendor oversight.					
Title: Forensics Dominance System - Marine Corps (FDS-MC): Support ***Articles:*** ***FY 2024 Plans:*** - Conclude laboratory integration to facilitate cybersecurity updates, Technical Readiness Reviews, and software patching. - Conduct market research for risk reduction and tech refresh of the FDS-MC system. ***FY 2025 Base Plans:*** N/A ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** - Decrease from FY24 to FY25 is due to consolidation into ID & Attribution Activities (IA2) FoS in FY25.	0.171 -	0.275 -	0.000 -	0.000 -	0.000 -
Title: Forensics Dominance System - Marine Corps (FDS-MC): Test and Evaluation ***Articles:*** ***FY 2024 Plans:*** - Complete the evaluation of COTS forensics components for risk reduction of the FDS-MC system. - Initiate the evaluation and procurement of hardware components for the FDS-MC system. ***FY 2025 Base Plans:***	0.086 -	0.729 -	0.000 -	0.000 -	0.000 -

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
N/A ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** - Decrease from FY24 to FY25 is due to consolidation into ID & Attribution Activities (IA2) FoS in FY25.					
Title: IDS-MC: Product Development	0.548	0.263	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue to develop/integrate software/hardware enhancements and interoperability between devices and data systems ***FY 2025 Base Plans:*** N/A ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** - Decrease from FY24 to FY25 is due to consolidation into ID & Attribution Activities (IA2) FoS in FY25.					
Title: IDS-MC: Support	0.153	0.081	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue integration of enhanced identity collection capabilities. - Conclude software engineering support. - Initiate market research for the transaction management application tech refresh. - Initiate market research to support mobile collection device tech refresh. ***FY 2025 Base Plans:*** N/A ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:***					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Decrease from FY24 to FY25 is due to consolidation into ID & Attribution Activities (IA2) FoS in FY25.					
Title: ID & Attribution Activities (IA2) FoS: Product Development	0.000	0.000	0.682	0.000	0.682
Articles:	-	-	-	-	-
Description: Merger of IDS-MC and FDS-MC that is now called ID & Attribution Activities (IA2) FoS.					
FY 2024 Plans: N/A					
FY 2025 Base Plans: - Complete development and integration of software and hardware enhancements and interoperability between devices and data systems - Initiate development of an identity intelligence software platform with targeted data integration and custom AI/ML algorithms for instant analysis capability - Initiate development of an enhanced forensic collection capability, an AI/ML solution that provides forensic analytical insights to the FMF at the tactical edge					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: - Increase from FY24 to FY25 reflects initiation of identity collection enhancements and forensic collection capability development. IDS-MC and FDS-MC are consolidated into ID & Attribution Activities (IA2) FoS in FY25.					
Title: ID & Attribution Activities (IA2) FoS: Test and Evaluation	0.000	0.000	0.220	0.000	0.220
Articles:	-	-	-	-	-
Description: Merger of IDS-MC and FDS-MC that is now called ID & Attribution Activities (IA2) FoS.					
FY 2024 Plans: N/A					
FY 2025 Base Plans: - Conclude the evaluation and procurement of hardware components for the FDS-MC system. - Initiate testing on prototypes for the next generation of the FDS-MC capability					
FY 2025 OCO Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** - Increase from FY24 to FY25 reflects initiating testing on prototypes for the next generation of the FDS-MC capability. IDS-MC and FDS-MC are consolidated into ID & Attribution Activities (IA2) FoS in FY25.					
Title: ID & Attribution Activities (IA2) FoS: Support	0.000	0.000	0.125	0.000	0.125
Articles:	-	-	-	-	-
Description: Merger of IDS-MC and FDS-MC that is now called ID & Attribution Activities (IA2) FoS. ***FY 2024 Plans:*** N/A ***FY 2025 Base Plans:*** - Complete market research for the transaction management application tech refresh - Complete market research for the mobile collection device tech refresh - Complete market research for risk reduction and tech refresh of the forensic collection capability ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** - Increase from FY24 to FY25 reflects efforts to complete the market research for transaction management application and mobile collection device in FY25. IDS-MC and FDS-MC are consolidated into ID & Attribution Activities (IA2) FoS in FY25.					
Title: H2C2: Product Development	1.300	1.650	1.429	0.000	1.429
Articles:	-	-	-	-	-
FY 2024 Plans: -Continue to develop cybersecurity and vulnerability patches for fielded software. -Continue software development to incorporate cybersecurity patches and software updates to improve interoperability with existing C2 Systems and peripheral devices as part of future ECPs. ***FY 2025 Base Plans:*** -Continue to develop cybersecurity and vulnerability patches for fielded software.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Continue software development to incorporate cybersecurity patches and software updates to improve interoperability with existing C2 Systems and peripheral devices as part of future ECPs. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease of $0.221M from FY2024 to FY2025 is due product development efforts nearing completion and increase of test and evaluation efforts					
Title: H2C2: Support	1.100	1.684	1.800	0.000	1.800
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue integration of additional software applications into the H2C2 end user device hardware platform. - Continue integration of emerging capabilities across the H2C2 portfolio to include MCH end user device, software application, peripheral equipment and integration with existing C2 programs of record. ***FY 2025 Base Plans:*** - Continue integration of additional software applications into the H2C2 end user device hardware platform. - Continue integration of emerging capabilities across the H2C2 portfolio to include MCH end user device, software application, peripheral equipment and integration with existing C2 programs of record. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase of $0.116M from FY2024 to FY2025 is due to increased integration of new capabilities.					
Title: H2C2: Test and Evaluation	1.020	1.100	1.200	0.000	1.200
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue testing of cybersecurity and vulnerability patches for current MCH software. - Continue interoperability testing between follow on MCH software updates and other existing C2 systems. ***FY 2025 Base Plans:*** -Continue testing of cybersecurity and vulnerability patches for current MCH software.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Continue interoperability testing between follow on MCH software updates and other existing C2 systems. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase of $0.100M from FY2024 to FY2025 is due to new capabilities being assessed and reviewed for integration.					
Title: SERPNT (formerly REPNT): Support	3.155	1.156	0.555	0.000	0.555
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue to support all technical and programmatic activities as the PNT CMO evaluates, procures, and fields M-Code and non-GPS capabilities to Marine operating forces. - Continue the evaluation of technologies that will increase the resiliency and assurance of PNT capabilities across the USMC enterprise. - Assist Program Management Offices (PMOs) with integration of M-Code capable A-PNT systems into their respective platforms, and assist client system PMOs in ensuring data interfaces work and that appropriate Graphical User Interfaces (GUIs) are developed to support combat operations in Navigation Warfare (NAVWAR) contested environments. ***FY 2025 Base Plans:*** - Assist in the evaluation of the MARNAV Block II potential equipment solution identified during source selection. - Continue to support all technical and programmatic activities as the PNT CMO evaluates, procures, and fields M-Code and non-GPS capabilities to Marine operating forces. - Continue the evaluation of technologies that will increase the resiliency and assurance of PNT capabilities across the USMC enterprise. - Assist Program Management Offices (PMOs) with integration of M-Code capable A-PNT systems into their respective platforms, and assist client system PMOs in ensuring data interfaces work and that appropriate Graphical User Interfaces (GUIs) are developed to support combat operations in Navigation Warfare (NAVWAR) contested environments. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:***					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
$0.601M decrease from FY24 to FY25 represents reduced focus on support efforts due to increased Test & Evaluation costs arising from MARNAV Block II.					
Title: SERPNT (formerly REPNT): Test and Evaluation	0.653	1.860	6.632	0.000	6.632
Articles:	-	-	-	-	-
FY 2024 Plans: - Participate in Army's test events for the MAPS Gen II system, which will lead to the successful fielding of the Marine Corps' Mounted Assured Resilient Navigation (MARNAV) capability. - Continue laboratory analysis and simulations, to include field testing of alternative PNT solutions, as the Commodity Management Office (CMO) fields M-Code capable solutions to Marine Corps' priority host platforms. - Plan out future T&E activities to include the development of a TEMP and working hand-in-hand with MCOTEA. - Conduct any necessary Engineering Change Proposals (ECPs) for MAPS Gen II. - Evaluate the use of additional PNT sensors on associated host platforms.					
FY 2025 Base Plans: - Conduct MARNAV Block II (Marine Variant) test and evaluation on minimum viable product during source selection process. - Conduct Developmental Testing events for MARNAV Block II (i.e., environmental, reliability, performance and safety). - Conduct any necessary Engineering Change Proposals (ECPs) for MAPS Gen II. - Evaluate the use of additional PNT sensors on associated host platforms.					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: $4.772M increase from FY24 to FY25 reflects the beginning of MARNAV Block II Engineering, Manufacturing, and Design (EMD) following source selection.					
Title: SERPNT: Management Services	0.898	0.960	0.973	0.000	0.973
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue engineering and technical studies focused on increasing the resiliency and assurance of Assured PNT capabilities across the USMC enterprise.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Continue development of technical strategies that will ensure that NAVWAR compliance is implemented across the Marine Corps as M-Code capable solutions are identified, procured and fielded. - Continue to provide subject matter expertise to the PNT CMO in all matters relevant to the GPS / PNT arena, and function as a technical liaison to other Service activities, industry partners, and academia. ***FY 2025 Base Plans:*** - Engineering and Technical evaluation of MARNAV Block II candidate solutions identified in the source selection process. - Evaluate Block II solution upon contract award, and participate in System Engineering & Technical Review (SETR) process. - Evaluation of PNT solutions to counter current and future threats identified. - Continue engineering and technical studies focused on increasing the resiliency and assurance of Assured PNT capabilities across the USMC enterprise. - Continue development of technical strategies that will ensure that NAVWAR compliance is implemented across the Marine Corps as M-Code capable solutions are identified, procured and fielded. - Continue to provide subject matter expertise to the PNT CMO in all matters relevant to the GPS / PNT arena, and function as a technical liaison to other Service activities, industry partners, and academia. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** No significant change.					
Title: Mobile All-Domain Observation and Sensing System (MA-DOSS) : Product Development ***Articles:*** ***FY 2024 Plans:*** MA-DOSS was previously funded in PE 0206625M, Project 2272 in FY 2023. - Continues product development and integration of GBOSS AI/ML hardware and software within Sensor Family of Systems which will provide object detection capabilities resulting in decreased time required to conduct Indications and Warnings (I&W). - Continues development efforts in support of the MA-DOSS FoS: The MA-DOSS Fos will provide the ability to observe, collect, detect, classify, identify, track, record, and report on contacts, objects of interest, and assess	0.000 -	17.380 -	2.850 -	0.000 -	2.850 -

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
threats twenty-four hours a day utilizing a fused sensor data display while reducing manpower requirements and the cognitive workload on operators and analysts. ***FY 2025 Base Plans:*** - Completes product development and integration of GBOSS AI/ML hardware and software within Sensor Family of Systems which will provide object detection capabilities resulting in decreased time required to conduct Indications and Warnings (I&W). - Continues development efforts in support of the MA-DOSS FoS: The MA-DOSS Fos will provide the ability to observe, collect, detect, classify, identify, track, record, and report on contacts, objects of interest, and assess threats twenty-four hours a day utilizing a fused sensor data display while reducing manpower requirements and the cognitive workload on operators and analysts. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease from FY2024 to FY 2025 reflects completion of product development and integration of GBOSS AI/ML hardware and software within Sensor Family of Systems and development efforts in support of the MA-DOSS FoS.					
Title: JBCP: Test and Evaluation	0.000	0.000	0.743	0.000	0.743
Articles:	-	-	-	-	-
FY 2024 Plans: N/A ***FY 2025 Base Plans:*** - Test and evaluate new system. - Initiate testing of cybersecurity and vulnerability patches for the future current MMC-S software. - Initiate interoperability testing between follow on MMC-S software updates and other existing C2 systems. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:***					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Increase of $0.743M from FY2024 to FY2025 initiates testing with the Army and evaluating the new software and hardware capability.					
Accomplishments/Planned Programs Subtotals	25.765	55.653	42.039	0.000	42.039

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• PMC/4652-1: *ID & Attribution Activities (IA2) FoS*	0.293	0.582	1.559	-	1.559	1.114	1.046	0.899	0.919	Continuing	Continuing
• PMC/4633-1: *SERPNT (formerly REPNT)*	30.957	35.444	19.820	-	19.820	28.708	36.612	41.429	40.895	Continuing	Continuing
• PMC/4631AB: *H2C2*	17.843	9.440	9.443	-	9.443	9.440	9.440	9.629	9.831	Continuing	Continuing
• PMC/4747/6438A: *MA-DOSS*	0.674	0.000	1.905	-	1.905	0.000	5.010	5.110	5.217	Continuing	Continuing
• PMC/4652-2: *FDS-MC*	0.000	1.200	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.200

Remarks

D. Acquisition Strategy

SERPNT (formerly REPNT): As the Position, Navigation, and Timing (PNT) Commodities Management Office (CMO), the Marine Corps program office will continue to leverage efforts conducted within the joint environment to assist in informing and implementing the enterprise PNT strategy for the Marine Corps. The program office will seek out opportunities to maximize the use of COTS/NDI products in its approach. The PNT CMO will identify opportunities for integration of emerging technologies across the variety of Marine Corps ground platforms.

MAGTF C2 Tactical Service Oriented Architecture (TSOA): TSOA program office has developed its Acquisition Strategy/Acquisition Plan (ASAP) to define the TSOA operational mission, business strategy and the detailed acquisition approach relative to cost, schedule and performance drivers. The TSOA program is being developed and managed using an "IT-Box" construct that supports agile development and requirements oversight for information systems." Requirements for TSOA are described in three key documents: the Information System Initial Capabilities Document (IS-ICD), the Requirements Definition Package (RDP), and the Capability Drop (CD).

The Identity and Attribution Activities (IA2) Family of Systems (FoS) acquisition strategy: IDS-MC Inc 2 acquisition strategy involved significant market research during FY 2017, resulting in a DoD Rapid Innovation Funding (RIF), Broad Agency Announcement (BAA) for IDS-MC Inc 2 prototyping, to provide a complete prototype identity operations system. Upon completion of the prototype system, the Program Office obtained a successful Milestone C/Full Rate Production (FRP) decision for IDS-MC Inc 2. The Program Office utilized a Justification and Approval to move into a traditional Federal Acquisition Regulations (FAR) based acquisition for both Low-Rate Initial Production and Full Rate Production contracts. IDS-MC Inc 2 achieved Full Operational Capability (FOC) in 3rd quarter FY 2022. The FDS-MC acquisition strategy is

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evolutionary, structured to deliver capabilities incrementally, recognizing the need for future capability improvements. This allows the current capability to be utilized in the field without interruption, while implementing updated components and improved technologies as they evolve. The FDS-MC acquisition strategy leverages market research, user feedback, and technology exploration to deliver a streamlined, efficient capability that can be easily sustainable by the Marine Corps going forward.

Handheld Command and Control (H2C2): H2C2 will use an evolutionary approach for technology insertion. The approach will leverage and mature COTS and NDI technologies to rapidly transition a handheld data capability to other acquisition programs. H2C2 inserts mature technology into existing programs in order to fill capability gaps and requirement shortfalls. These technologies will be inserted at different times along gaining program acquisition cycles. This strategy will apply to available technology at different proposed technology insertion points for each gaining program. Additionally, H2C2 has been tasked to develop a solution that meets the JBC-P dismounted requirements and requires C2SA interoperability with existing C2 programs of record. The current iteration of MCH provides a dismounted C2SA capability at the squad level via a tethered connection to tactical radios. Future iterations will incorporate enhanced software and hardware capabilities based on technological maturity over time in accordance with the evolutionary development approach.

Mobile All-Domain Observation and Sensing System (MA-DOSS): MA-DOSS makes maximum use of COTS, GOTS and NDI with Firm Fixed Price Production.

Joint Battle Command Platform (JBCP) : JBC-P will be fielded to vehicles platforms all Divisions, Wing, and Logistics brigades and combat service and service support brigades, the USMC increase the density of Blue Force SA, thus reducing the risk of fratricide, and enhancing battle command capability across the joint force. JBC-P Family of Systems (FoS) is a digital, battle command information FoS that provides integrated, on-the-move, timely, relevant C2/Situational Awareness (SA) information to tactical combat, combat support, combat service support commanders, leaders, and key C2 nodes. The system provides leaders a capability for selecting, managing, and assimilating relevant data and information. This allows commanders the ability to concentrate weapons systems effects instead of combat forces and enables units to be survivable and lethal. The ability to pass orders and graphics provides the joint warfighter the capability to visualize the commander's intent and scheme of maneuver.

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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MAGTF C2 Product Development	C/CPFF	NIWC-LANT : Charleston, SC	65.953	2.600	Apr 2023	6.392	Apr 2024	3.015	Apr 2025	-		3.015	Continuing	Continuing	Continuing
MAGTF C2	C/CPFF	NIWC-PAC : San Diego, CA	15.511	1.000	May 2023	3.600	May 2024	6.395	May 2025	-		6.395	Continuing	Continuing	Continuing
MAGTF C2	WR	NIWC-LANT : Charleston, SC	13.736	2.692	Feb 2023	5.598	Feb 2024	3.150	Feb 2025	-		3.150	0.000	25.176	-
MAGTF C2	WR	NRL : Washington, DC	6.457	0.800	Mar 2023	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
MAGTF C2	C/CPFF	ARL : Penn State, PA	2.700	0.500	Apr 2023	0.000		0.400	Dec 2024	-		0.400	0.000	3.600	-
MAGTF C2	C/CPFF	NG : San Diego, CA	9.321	3.000	Apr 2023	5.785	Apr 2024	4.480	Apr 2025	-		4.480	0.000	22.586	-
MAGTF C2	MIPR	NRL : Stennis, MS	0.000	0.000		0.000		0.800	Mar 2025	-		0.800	0.000	0.800	-
IDS-MC	WR	NIWC-LANT : Charleston, SC	0.000	0.398	Nov 2022	0.263	Nov 2023	0.000		-		0.000	0.000	0.661	-
IDS-MC	WR	GSA-FSA-QFOB : Washington, DC	0.000	0.150	Mar 2023	0.000		0.000		-		0.000	0.000	0.150	-
IA2 FoS	WR	NIWC-LANT : Charleston, SC	0.000	0.000		0.000		0.682	Nov 2024	-		0.682	Continuing	Continuing	Continuing
H2C2	WR	DPSS : China Lake, CA	3.155	1.300	Nov 2022	1.650	Nov 2023	1.429	Apr 2025	-		1.429	0.000	7.534	-
MA-DOSS GOV	WR	NSWC-CRANE : Crane,IN	0.000	0.000		4.677	Apr 2024	1.347	Apr 2025	-		1.347	Continuing	Continuing	Continuing
MA-DOSS CTR	C/CPFF	NSWC-CRANE : Crane,IN	0.000	0.000		12.703	Apr 2024	1.503	Apr 2025	-		1.503	Continuing	Continuing	Continuing
Prior Years Cumulative Funding	Various	Various : Various	171.628	0.000		0.000		0.000		-		0.000	0.000	171.628	-
		Subtotal	288.461	12.440		40.668		23.201		-		23.201	Continuing	Continuing	N/A

Remarks

Product Development overall decrease from FY 2024 to FY 2025 is largely attributed to the following:
GBOSS AI/ML hardware and software completion within Sensor Family of Systems and development efforts in support of the MA-DOSS FoS.

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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MAGTF C2	WR	NIWC-P : San Diego, CA	12.640	1.543	Mar 2023	1.600	Mar 2024	1.500	Mar 2025	-		1.500	Continuing	Continuing	Continuing
FDS-MC	C/BA	NIWC LANT : Charleston, SC	0.093	0.171	Oct 2022	0.275	Oct 2023	0.000		-		0.000	Continuing	Continuing	Continuing
IDS-MC	WR	NIWC LANT : Charleston, SC	2.373	0.153	Oct 2022	0.081	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
IA2 FoS	C/BA	NIWC LANT : Charleston, SC	0.000	0.000		0.000		0.125	Nov 2024	-		0.125	0.000	0.125	-
H2C2	C/BA	NIWC LANT 1 : Charleston, SC	5.414	0.100	Dec 2022	0.150	Dec 2023	0.175	Apr 2025	-		0.175	0.000	5.839	-
H2C2	C/BA	NIWC LANT : Charleston, SC	2.556	0.286	Dec 2022	0.300	Dec 2023	0.325	Apr 2025	-		0.325	0.000	3.467	-
H2C2	C/BA	NSWC Crane : Crane, IN	3.530	0.558	Dec 2022	0.600	Dec 2023	0.650	Apr 2025	-		0.650	0.000	5.338	-
H2C2	C/BA	NSWC Crane2 : Crane, IN	0.360	0.156	Dec 2022	0.134	Dec 2023	0.150	Apr 2025	-		0.150	0.000	0.800	-
H2C2	C/BA	MCTSSA : Camp Pendleton, CA	0.300	0.000		0.500	Dec 2023	0.500	Apr 2025	-		0.500	0.000	1.300	-
SERPNT	C/BA	NIWC LANT : Charleston, SC	2.752	0.000		0.000		0.000		-		0.000	0.000	2.752	-
SERPNT (EMD Support)	C/FFP	MCSC : Quantico, VA	0.000	0.631	May 2023	0.530	May 2024	0.000		-		0.000	0.000	1.161	-
SERPNT (PNT Integration Support)	TBD	MCSC : Quantico, VA	0.000	2.524	Aug 2023	0.626	Feb 2024	0.555	Feb 2025	-		0.555	0.000	3.705	-
Prior Years Cumulative Funding	Various	Various : Various	10.112	0.000		0.000		0.000		-		0.000	0.000	10.112	-
		Subtotal	40.130	6.122		4.796		3.980		-		3.980	Continuing	Continuing	N/A

Remarks

Support overall decrease from FY 2024 to FY 2025 is largely attributed to the following:
SERPNT Support Costs decreased due to the reduced focus on support efforts due to increased Test & Evaluation costs arising from MARNAV Block II.

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Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation (OT&E)	C/ FFPLOE	MC2SA MCTSSA : Camp Pendleton, CA	11.631	2.789	Apr 2023	3.730	Apr 2024	3.330	Apr 2025	-		3.330	Continuing	Continuing	Continuing
Operational Test & Evaluation (OT&E)	MIPR	FDS-MC NIWC L : Charleston, SC	1.206	0.086	Oct 2022	0.729	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Operational Test & Evaluation (OT&E)	C/BA	IA2 NIWC LANT : Charleston, SC	0.000	0.000		0.000		0.220	Nov 2024	-		0.220	0.000	0.220	-
Developmental Test & Evaluation (DT&E)	WR	H2C2 NIWC LANT : Charleston, South Carolina	4.295	0.523	Dec 2022	0.500	Dec 2023	0.600	Apr 2025	-		0.600	0.000	5.918	-
Developmental Test & Evaluation (DT&E)	C/FFP	H2C2 NIWC LANT : Charleston, SC	1.683	0.387	Dec 2022	0.350	Dec 2023	0.300	Apr 2025	-		0.300	0.000	2.720	-
Developmental Test & Evaluation (DT&E)	C/FFP	H2C2 MCTSSA : Camp Pendleton, CA	2.744	0.110	May 2023	0.250	May 2024	0.300	Apr 2025	-		0.300	0.000	3.404	-
Operational Test & Evaluation (OT&E)	C/FFP	SERPNT NIWC-LANT : Charleston, SC	0.000	0.653	Oct 2023	1.860	Oct 2024	1.402	Oct 2024	-		1.402	0.000	3.915	-
Developmental Test & Evaluation (DT&E)	MIPR	JBCP NIWC LANT : Charleston SC	0.000	0.000		0.000		0.743	Apr 2025	-		0.743	0.000	0.743	-
Operational Test & Evaluation (OT&E)	C/CPFF	MCSC : Quantico, VA	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Operational Test & Evaluation (OT&E)	Various	Various : Various	36.016	0.000		0.000		0.000		-		0.000	0.000	36.016	-
Developmental Test & Evaluation (DT&E)	C/FFP	TBD : TBD	0.000	0.000		0.000		2.000	May 2025	-		2.000	0.000	2.000	-
Developmental Test & Evaluation (DT&E)	C/FFP	MCSC : Quantico, VA	0.000	0.000		0.000		3.230	Jun 2025	-		3.230	0.000	3.230	-
		Subtotal	57.575	4.548		7.419		12.125		-		12.125	Continuing	Continuing	N/A

Remarks

Test and Evaluation overall increase from FY 2024 to FY 2025 is largely attributed to the following:
Represents the beginning of the MARNAV Block II Engineering, Manufacturing, and Design (EMD) following source selection.

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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MAGTF C2	C/CPFF	CECOM/MITRE : Ft. Monouth, NJ	14.012	1.757	Jun 2023	1.810	Jun 2024	1.760	Jun 2025	-		1.760	Continuing	Continuing	Continuing
SERPNT	C/CPFF	CECOM/MITRE : Ft. Monouth, NJ	2.018	0.898	Dec 2022	0.960	Oct 2023	0.973	Oct 2024	-		0.973	0.000	4.849	-
Prior Years Cumulative Funding	Various	VARIOUS : VARIOUS	4.821	0.000		0.000		0.000		-		0.000	0.000	4.821	-
		Subtotal	20.851	2.655		2.770		2.733		-		2.733	Continuing	Continuing	N/A

Remarks

Management Services: No significant change from FY 2024 to FY 2025.

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	407.017	25.765		55.653		42.039		-		42.039	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
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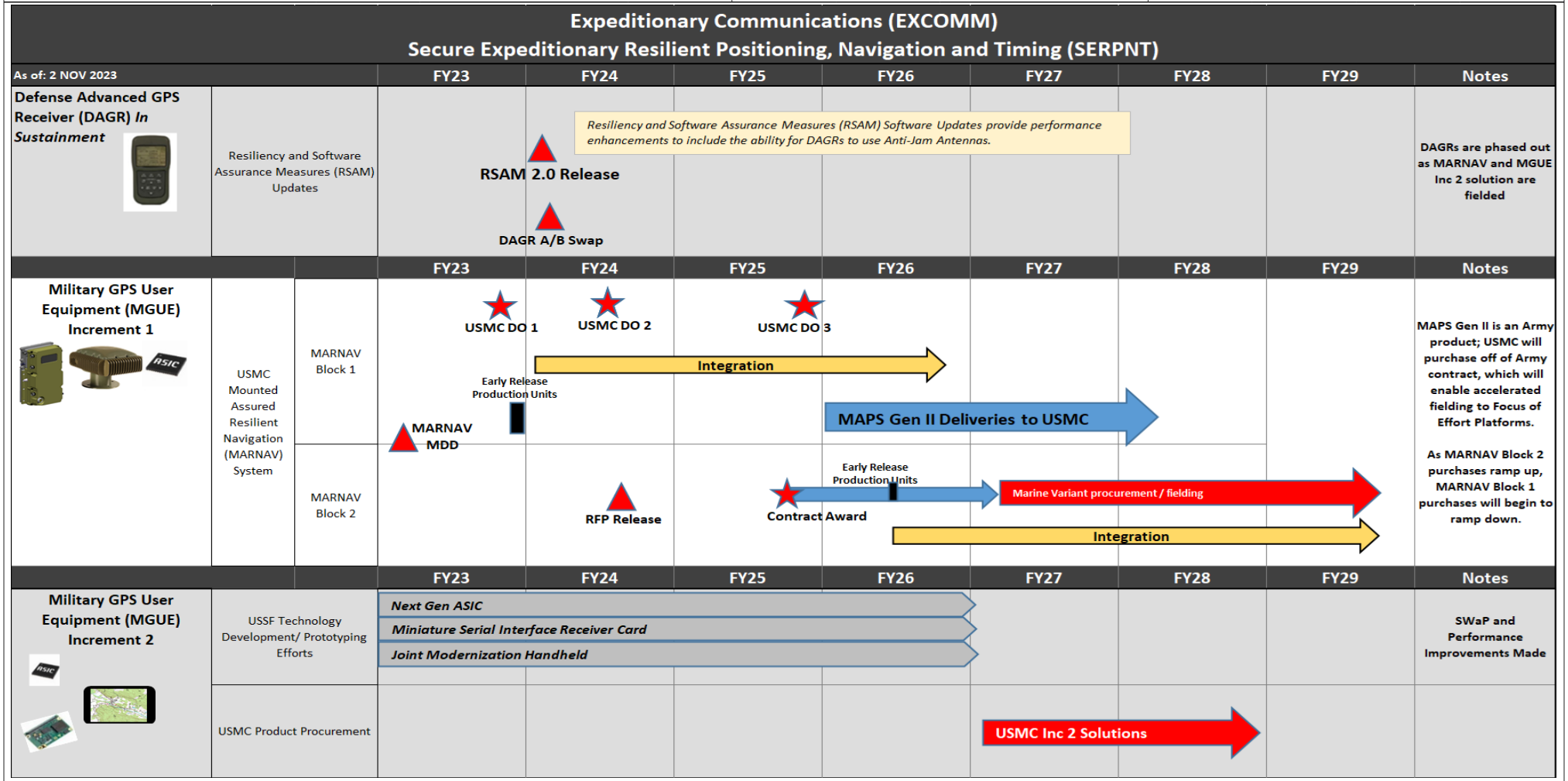

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

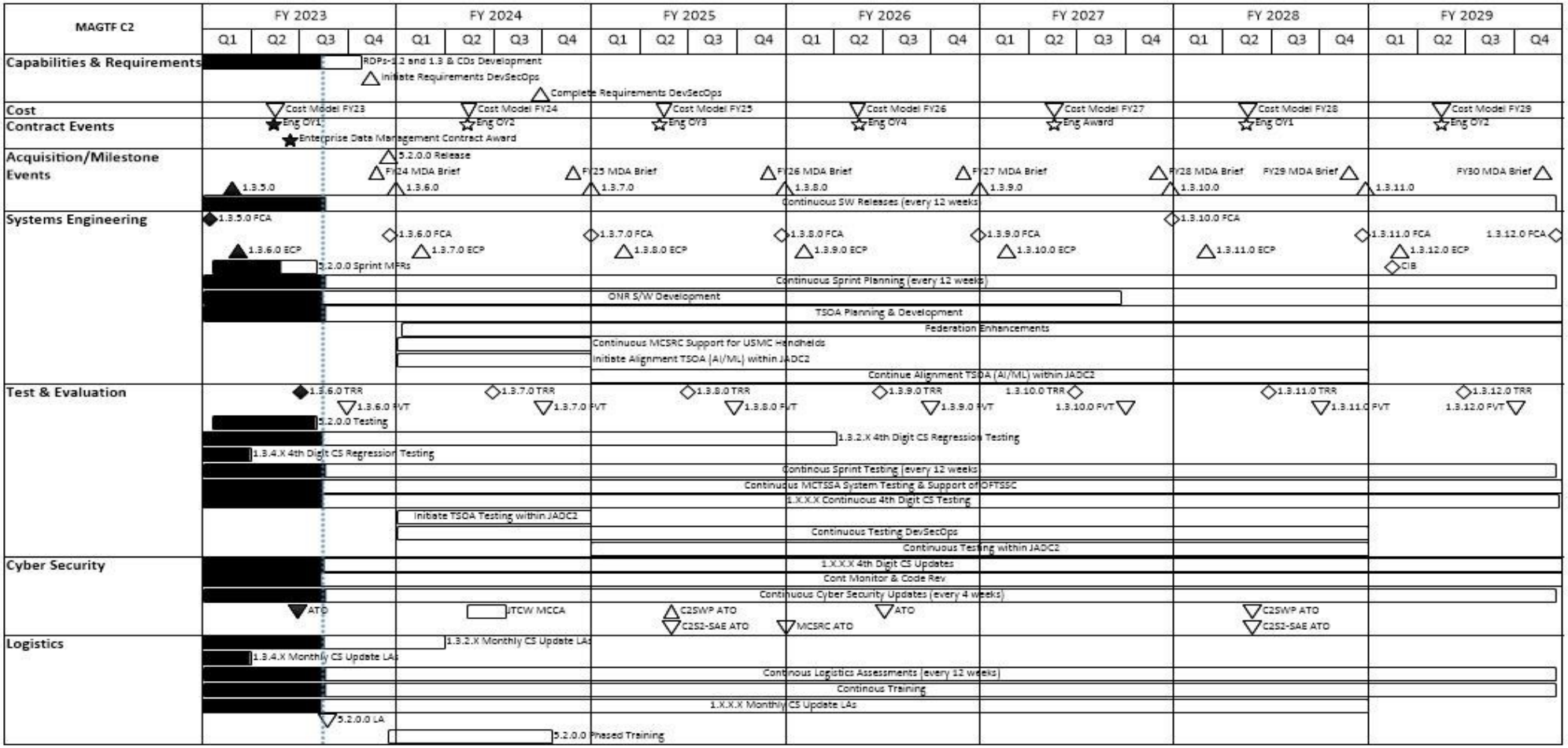

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

MA-DOSS Schedule

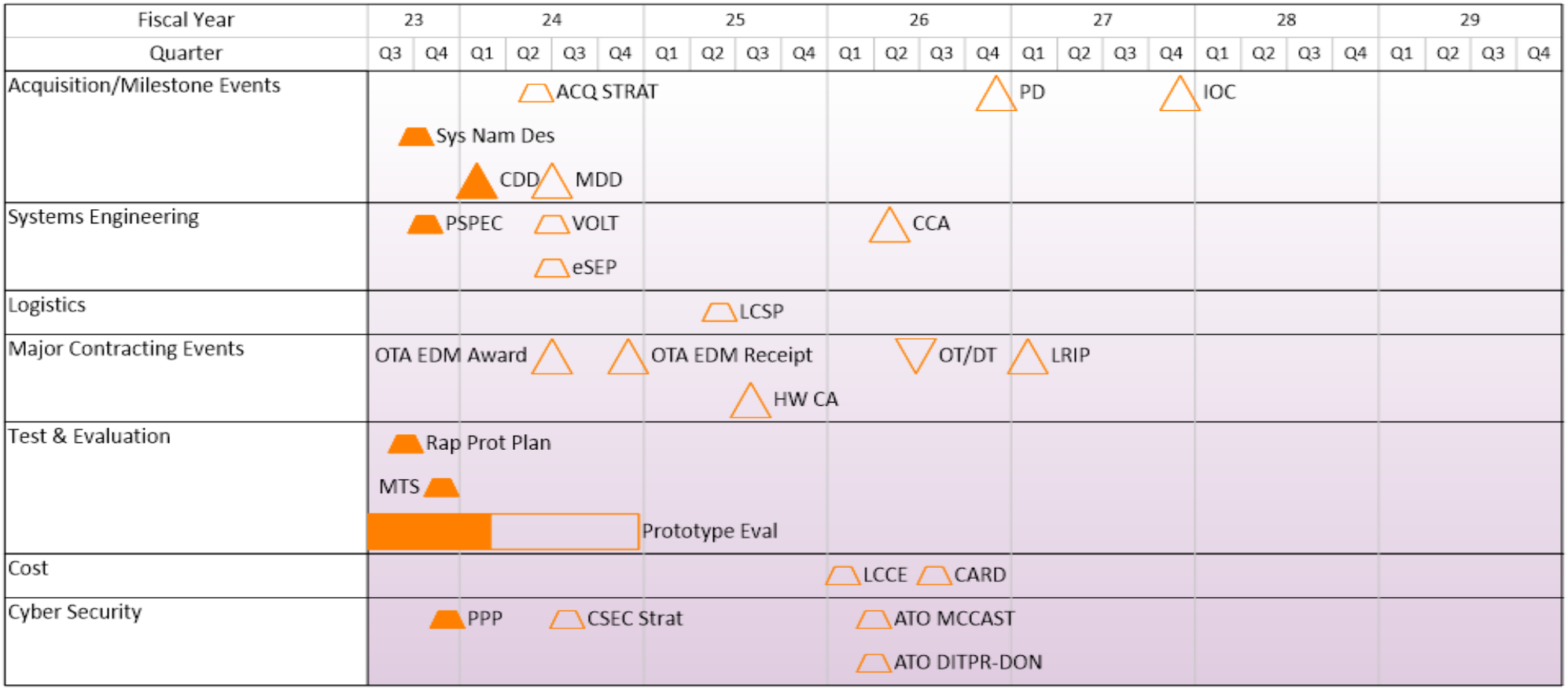

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

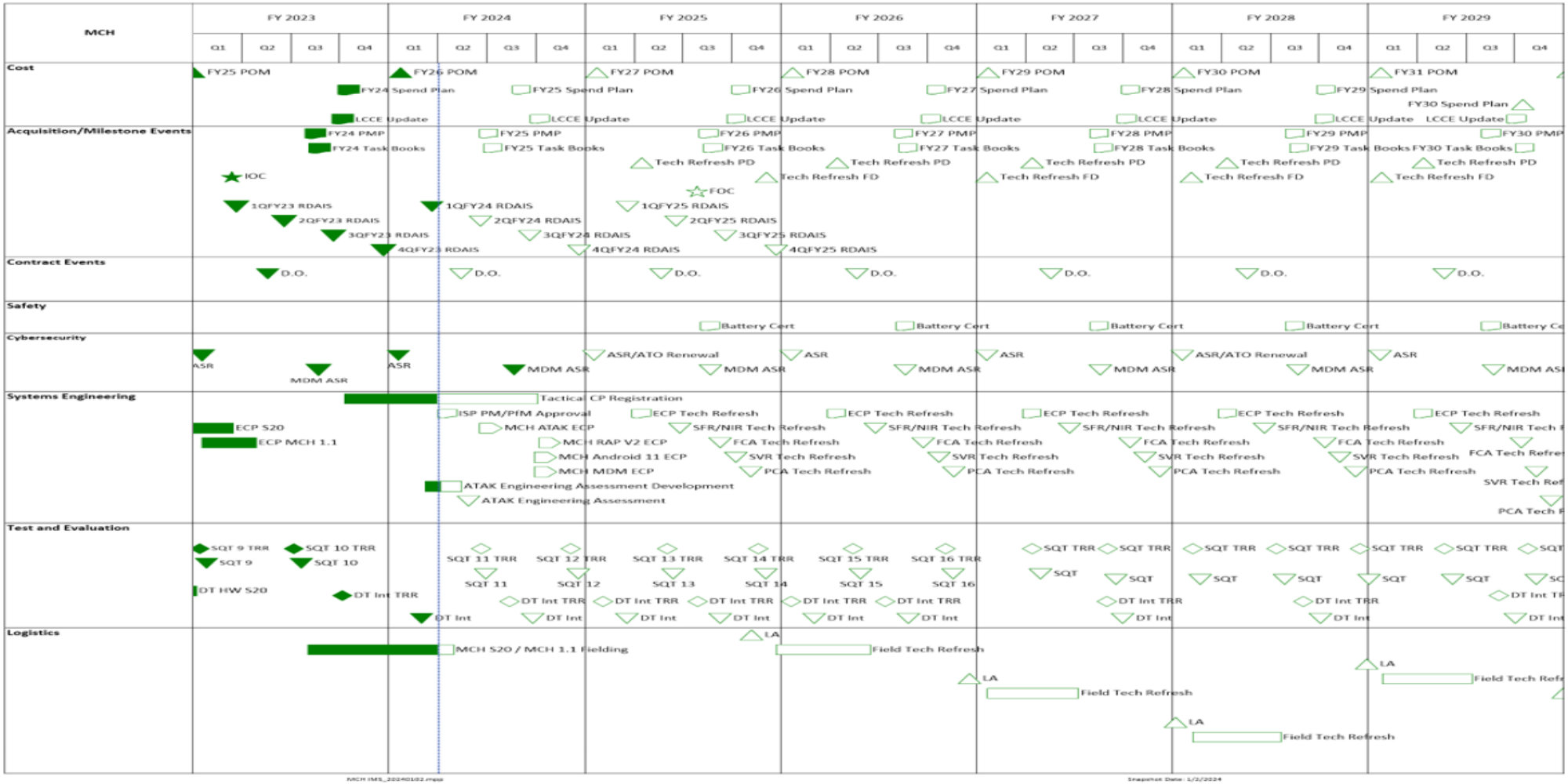

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

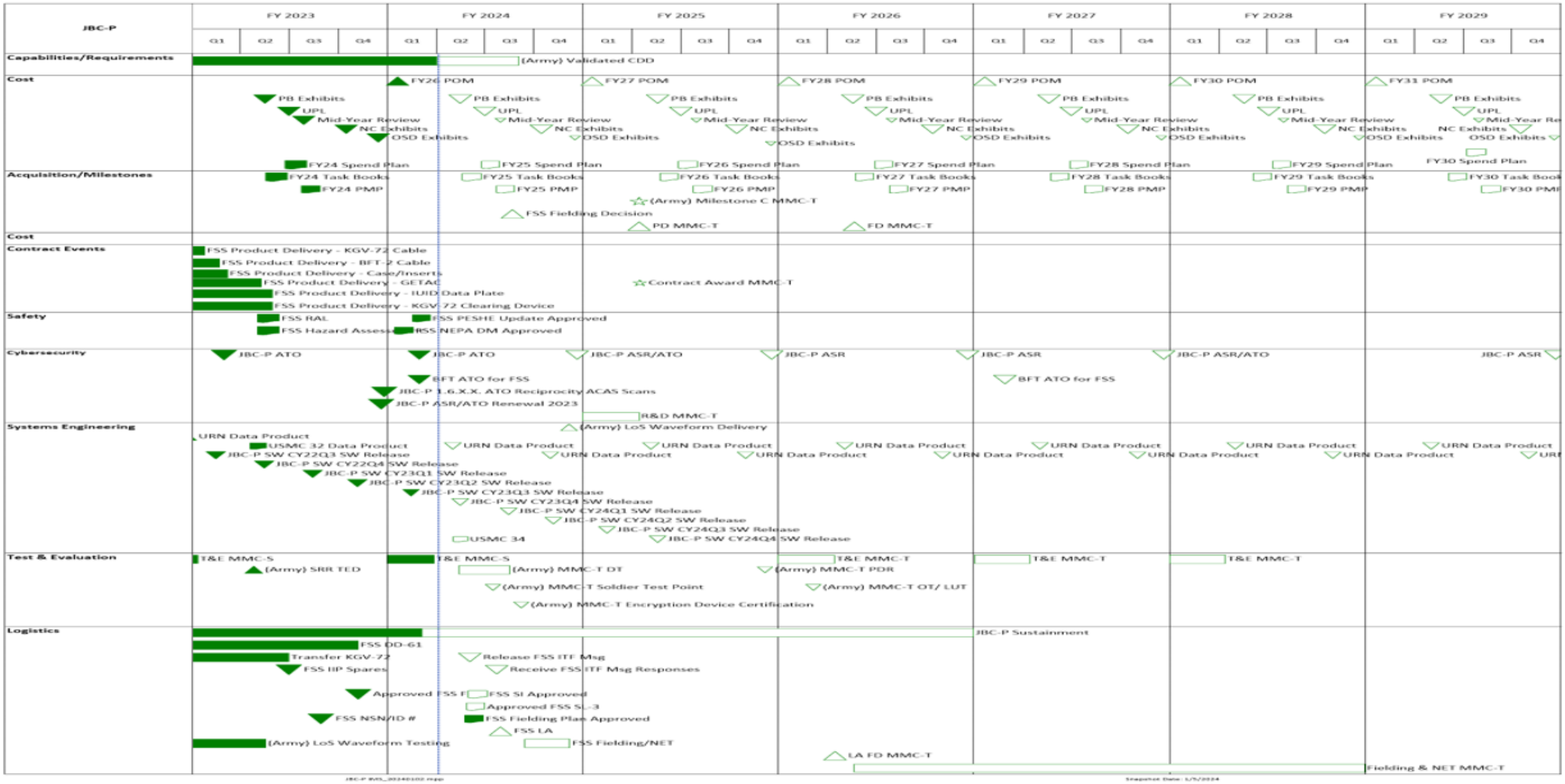

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

IA2 Schedule

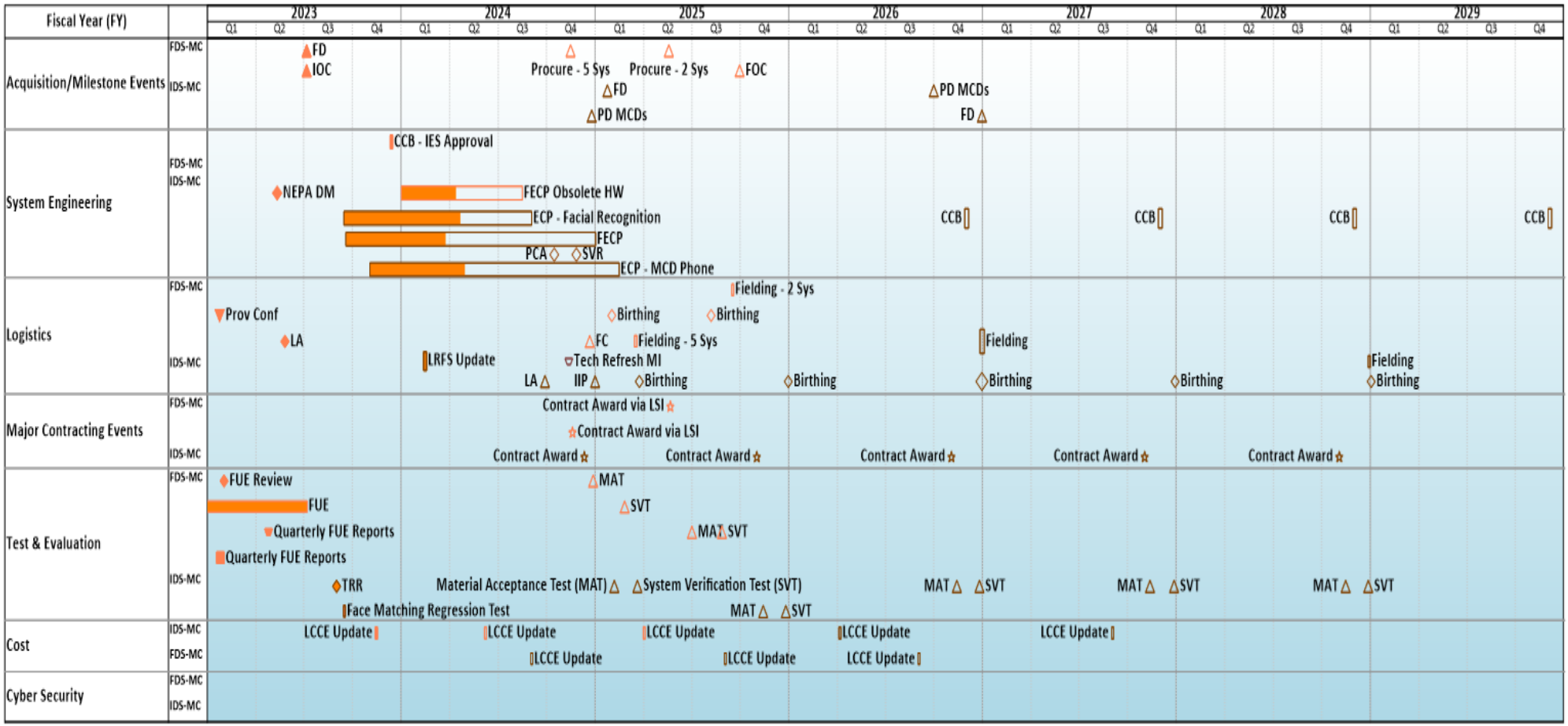

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2270				
MAGTF C2 1.3.5.0 Release	1	2023	1	2023
MAGTF C2 CIB	1	2023	1	2023
MAGTF C2 1.3.6.0 ECP	1	2023	1	2023
MAGTF C2 FIP	2	2023	2	2023
MAGTF C2 ENG OY1 AWARD	2	2023	2	2023
MAGTF C2 1.3.7.0 ECP	1	2024	1	2024
MAGTF C2 ENG OY2	2	2024	2	2024
MAGTF C2 1.3.7.0 TRR	3	2024	3	2024
MAGTF C2 1.3.7.0 FVT	4	2024	4	2024
MAGTF C2 1.3.8.0 ECP	1	2025	1	2025
MAGTF C2 1.3.8.0 TRR	2	2025	2	2025
MAGTF C2 ENG AWARD	2	2025	2	2025
MAGTF C2 1.3.8.0 FVT	3	2025	3	2025
IDS-MC Tech Refresh Contract Award	4	2024	4	2024
FDS-MC IOC	2	2023	2	2023
SERPNT MGUE Inc 1 MARNAV (MAPS) Procurement Decision	3	2023	3	2023
SERPNT MGUE Inc 1 MARNAV (MAPS) Production Contract Award	3	2023	3	2023
SERPNT MARNAV IOC	1	2025	1	2025
MADOSS System name Desigination Letter (MDM) MA-DOSS Light (MDL)	4	2023	4	2023
MADOSS CDD MA-DOSS Medium (MDM) MA-DOSS Light (MDL)	1	2024	1	2024
MADOSS ACQ STRAT MA-DOSS Medium (MDM) MA-DOSS Light (MDL)	2	2024	2	2024

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MADOSS MDD MA-DOSS Medium (MDM) MA-DOSS Light (MDL)	3	2024	3	2024
H2C2 Tech Refresh	2	2023	2	2023
H2C2 FCA Tech Refresh	2	2023	2	2023
H2C2 SVR Tech Refresh	2	2023	2	2023
H2C2 PCA Tech Refresh	2	2023	2	2023
H2C2 DT TRR	3	2023	3	2023
H2C2 ECP Tech Refresh	2	2024	2	2024
H2C2 FCA Refresh	1	2024	1	2024
H2C2 SVR Refresh	1	2024	1	2024
H2C2 SQT TRR	2	2024	2	2024
Identity and Attribution Activities (IA2) Family of Systems (FoS): FDS-MC FD	3	2023	3	2023
Identity and Attribution Activities (IA2) Family of Systems (FoS): FDS-MC IOC	3	2023	3	2023
Identity and Attribution Activities (IA2) Family of Systems (FoS): FDS-MC Procurement - 5 Systems	4	2024	4	2024
Identity and Attribution Activities (IA2) Family of Systems (FoS): FDS-MC Procurement - 2 Systems	2	2025	2	2025
Identity and Attribution Activities (IA2) Family of Systems (FoS): FDS-MC FOC	4	2025	4	2025
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC FD	1	2025	1	2025
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC PD - Mobilie Collection Device	4	2024	4	2024
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC PD- Mobile Collection Device	4	2026	4	2026
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC FD cont	1	2027	1	2027
Identity and Attribution Activities (IA2) Family of Systems (FoS): FDS-MC Configuration Control Board - Inbound ECP Summary	4	2023	4	2023
Identity and Attribution Activities (IA2) Family of Systems (FoS): FDS-MC Final ECP Obsolete HW	1	2024	3	2024

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2270 / *Exp Indirect Fire Gen Supt Wpn Sys*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC ECP - Facial Recognition	3	2023	3	2024
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC Final ECP	3	2023	4	2024
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC PCAa	4	2024	4	2024
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC SVR	4	2024	4	2024
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC ECP - MCD Phone	4	2023	1	2025
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC Contract Award FY24	4	2024	4	2024
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC Contract Award FY25	4	2025	4	2025
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC Contract Award FY26	4	2026	4	2026
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC Contract Award FY27	4	2027	4	2027
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC Contract Award FY28	4	2028	4	2028
Identity and Attribution Activities (IA2) Family of Systems (FoS): FDS-MC FUE Review	1	2023	1	2023
Identity and Attribution Activities (IA2) Family of Systems (FoS): FDS-MC FUE	1	2023	3	2023
Identity and Attribution Activities (IA2) Family of Systems (FoS): FDS-MC SVT	1	2025	1	2025
Identity and Attribution Activities (IA2) Family of Systems (FoS): FDS-MC MAT	3	2025	3	2025
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC TRR	3	2023	3	2023
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC MAT	1	2025	1	2025
Identity and Attribution Activities (IA2) Family of Systems (FoS): IDS-MC SVT	1	2025	1	2025

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*				Project (Number/Name) 2273 / *Air Ops Cmd & Control (C2) Sys*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
2273: *Air Ops Cmd & Control (C2) Sys*	468.846	13.980	15.473	11.554	-	11.554	9.816	9.479	9.077	9.267	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Composite Tracking Network (CTN) - The Composite Tracking Network (CTN) is a Commandant of the Marine Corps (CMC) Force Design (FD) program which distributes composite tracking data to Command and Control (C2) and weapon systems participating in the US Navy's Cooperative Engagement Capability (CEC) network, which is a sensor network with integrated fire control capability that improves battle force air and missile defense capabilities by combining data from multiple battle force air search sensors on CEC-equipped units into a single, real-time, composite track picture. CTN greatly enhances fleet air defense working in concert with CEC by significantly contributing to real-time situational awareness. The program received ACAT III designation in Nov 2001 and is an instantiation of the USN CEC Program. The program is USMC led with US Navy and US Army cooperation. The 12 April 1995 Mission Need Statement (MNS) No. AAS 48 for the Common Aviation Command and Control System (CAC2S) established the Marine Corps' need to upgrade its existing air defense architecture with capabilities to support improved situational awareness (SA) and advanced engagement concepts. The Composite Tracking Network (CTN) program was initiated to address this capability gap. The CTN system (AN/MSQ-143A(V)1) is an integration effort consisting of an AN/USG-4B (the USMC CEC CTN platform) and other US Marine-unique components. The CTN system interfaces with the AN/TPS-80 Ground/Air Task Oriented Radar (G/ATOR) and the Common Aviation Command and Control System (CAC2S) to provide the Marine Air-Ground Task Force (MAGTF) and Joint Task Force Commanders a real-time, line of sight, high data-rate sensor and engagement data distribution network that combines all distributed sensor data, including G/ATOR measurements, into a fire control quality track picture which is the same for all CEC network nodes. CEC data combined with G/ATOR contributions, will effectively increase Situational Awareness by providing accurate, composite, and real-time surveillance tracks, reduce ground-to-air and air-to-air fratricide, enable air and surface Naval Integrated Fire Control-Counter Air (NIFC-CA), and extend the air defensive capability of forces in the littorals. Through integration & fielding of CEC Increment II capabilities, CTN shall integrate new sensor types and track data sources into the network, such as surface search radars and passive detection sensors, as well as relevant data from other networks. CTN shall accommodate more CUs and provide a more complete, robust, and resilient situational awareness picture, composite identification, and Integrated Fire Control (IFC), with assured communications for Integrated Air and Missile Defense (IAMD), surface warfare, and electronic mission warfare domains.

Air Battle Management (ABM) - ABM is a Commandant of the Marine Corps (CMC) Force Design (FD) program which contains the Theater Battle Management Core Systems-Marine Corps (TBMCS-MC). TBMCS-MC is the joint mandated air war planning tool for generation, dissemination, and execution of Air Tasking Orders (ATO) and Airspace Control Orders (ACO). TBMCS-MC is a core C2 system in the Marine aviation combat element for the tools required to conduct Situational Awareness and Assessment, Airspace De-confliction, Mission Planning/Execution/Re-planning, and Assault Support Processing. The Marine Corps derives, develops, and sustains the core TBMCS software suite in joint cooperation with the United States Air Force (USAF) and maintains its configuration of TBMCS-MC while continually improving its cybersecurity posture in accordance with relevant DoD and Marine Corps requirements and timelines. The Marine Corps maintains the responsibility to ensure the system meets Marine air C2 requirements and its operational relevant employment in a joint theater of operations while maintain interoperability with numerous Joint, Marine Corps, Navy and Air Force command and control systems.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
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Remote Video Viewing Terminal (RVVT) - Consists of Commercial-Off-The-Shelf (COTS) Video Down-Link (VDL) products such as the VideoScout Mobile Configuration 2 (VS-MC/2), VideoScout Mobile Configuration 3 (VS-MC/3), and Man Portable Video Down-Link (MPVDL) that allow for the viewing and exploitation of Full Motion Video (FMV) from Intelligence, Surveillance and Reconnaissance (ISR) assets. VDL systems are mission critical for coordination of direct and indirect fires and the prevention of fratricide. These systems provide the Fleet Marine Force with critical video and metadata from all USMC manned and unmanned aircraft to include, but not limited to Raven B, Puma, Micro-UAS, Shadow, Predator, Fire Scout, and Litening Pod on P-3, AV8-B, F/A-18, and F35. These products ensure critical data is displayed to Forward Air Controllers (FACs), Forward Observers (FOs), Fire Support Teams (FSTs), Firepower Control Teams (FCTs), Tactical Air Control Parties (TACPs) and Reconnaissance Teams.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Composite Tracking Network (CTN): Support and Management Services	0.026	1.085	0.160	0.000	0.160
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue travel, engineering support, and test support for CEC Block 2 (increment II) development. ***FY 2025 Base Plans:*** - Continue travel, engineering support, and test support for CEC Block 2 (increment II) development. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The decrease from FY 2024 to FY 2025 is due a reduction of engineering support for CSSA enhancements and MEIC tech refresh efforts.					
Title: Composite Tracking Network (CTN): Engineering Development	4.595	6.157	5.151	0.000	5.151
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue software certification to maintain interoperability with CEC Network to include associated engineering support. - Continue the development, integration, test, and certification activities required for insertion of new capabilities into CTN that interfaces to CAC2S & G/ATOR TPS-80. - Develop SW changes/testing required to implement the full spectrum of Naval Integrated Fire Control (NIFC) - From the Sea within the CTN system. - CTN integration and SW modifications to support CEC Block 2 capabilities as required by the CEC Increment II CDD (approved in February 2022). ***FY 2025 Base Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Continue software certification to maintain interoperability with CEC Network to include associated engineering support. - Continue the development, integration, test, and certification activities required for insertion of new capabilities into CTN that interfaces to CAC2S & G/ATOR TPS-80. - Continue the development of interfaces to integrate Naval Integrated Fire Control (NIFC) - From the Sea within the CTN system. - Continue integration and SW modifications to support CEC Block 2 capabilities as required by the CEC Increment II CDD. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The decrease from FY 2024 to FY 2025 is due to the reduction of needed scope to continue the development, integration, test, and certification activities required for CTN integration.					
Title: Composite Tracking Network (CTN): Developmental Testing and Cyber Security	4.541	3.695	2.133	0.000	2.133
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue SDP Next testing and evaluation. - Continue NIFC-CA system development with the Navy's CEC Network. - Continue systems engineering efforts and updates to the software baseline to support annual CEC FQT, maintain cybersecurity updates and its Authority to Operate. - Continue CEC Increment II development, integration and software modifications to support CEC Block 2 capabilities ***FY 2025 Base Plans:*** - Continue NIFC-CA system developmental testing with the Navy's CEC Network. - Continue systems engineering efforts and updates to the software baseline to support annual CEC FQT and IV&V, maintain cybersecurity updates and its Authority to Operate. - Continue CEC Increment II development, integration and software modifications to support CEC Block 2 capabilities ***FY 2025 OCO Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2273 / *Air Ops Cmd & Control (C2) Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The decrease from FY 2024 to FY 2025 is due to the reduction of scope for SDP Next development and testing as it transitions to production.					
Title: Remote Video Viewing Terminal (RVVT): Software Development Support	0.018	0.023	0.024	0.000	0.024
Articles:	-	-	-	-	-
FY 2024 Plans: - Completed implementation of Target Mensuration from Full Motion Video Meta Data. - Initiated development of standalone video player for intel configuration. ***FY 2025 Base Plans:*** - Complete development of standalone video player for intel configuration. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase from FY 2024 to FY 2025 is due to inflation.					
Title: Air Battle Management (ABM): Engineering Support	1.025	0.335	0.703	0.000	0.703
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue engineering support for further system integration development of the TBMCS-MC and its tech refresh. This is a continuation of the effort to upgrade the TBMCS-MC until the replacement system is fielded. ***FY 2025 Base Plans:*** - Engineering support to sustain USMC alignment with the USAF and Navy in the transition to the next suite of TBMCS-MC. - Continue engineering support for further system integration development of the TBMCS-MC and its tech refresh. This is a continuation of the effort to upgrade the TBMCS-MC until the replacement system is fielded. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:***					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
The increase from FY 2024 to FY 2025 is due to engineering support for the transition to the next suite of TBMCS-MC.					
Title: Air Battle Management (ABM): Test and Evaluation	1.338	2.406	1.320	0.000	1.320
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue development and T&E of Air Force KRADOS modules to meet Marine Corps TBMCS-MC replacement Next Generation system capability requirements. - Continue IA testing on developmental software to meet cyber security posture and conduct risk reduction testing to identify potential software vulnerabilities. - Initiate transition software & hosting environment development and testing. This is a technical collaboration with USAF & joint partners to ensure the Marine Corps continues to manage Service-specific aviation assets and missions in the development of air battle plans.					
FY 2025 Base Plans: - Continue IA testing on developmental software to meet cyber security posture and conduct risk reduction testing to identify potential software vulnerabilities. - Continue transition software & hosting environment development and testing.					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: The decrease from FY 2024 to FY 2025 is due to the reduction in scope of KRADOS modules application development and analysis.					
Title: Air Battle Management (ABM): Product Development	2.437	1.772	2.063	0.000	2.063
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue the development of next generation equipment and application development to support the replacement of TBMCS-MC.					
FY 2025 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Continue the development of next generation equipment and application development to support the replacement of TBMCS-MC. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The increase from FY 2024 to FY 2025 is for the continued development of the hosting environment as a part of the continued maturation and development of ABM's next generation system that will replace the TBMCS-MC.					
Accomplishments/Planned Programs Subtotals	13.980	15.473	11.554	0.000	11.554

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• PMC/4640: *Air Operations C2 Systems*	13.248	23.744	20.385	-	20.385	10.194	9.190	9.409	9.606	Continuing	Continuing

Remarks

D. Acquisition Strategy

ABM - The Marine Corps continues to sustain unique requirements in addition to Air Force requirements and deviates from the Air Force-developed TBMCS-Force Level configuration as necessary to sustain its TBMCS-MC. The USMC separately manages the development and fielding of software and hardware engineering change proposals for Information Assurance (IA) and functionality updates to ensure daily direct support of the Air Battle Plan in joint theaters of operation. The Marine Corps prevents TBMCS-MC obsolescence through cyclic and as-needed technical refreshment of information technology hardware when applicable. The USD (AT&L) canceled the US Air Force's Air Operations Center - Weapon System (AOC-WS) 10.2 program in 2018 that included the Command and Control (C2) Air Operations Suite - C2 Information Services (C2AOS-C2IS), therefore Air Force Program Executive Officer (PEO) Digital subsequently transitioned its efforts to a middle tier of acquisition (MTA) (Section 804 of the FY 2016 NDAA) rapid prototyping effort under the AOC-WS Modifications "Block 20" program. AOC-WS "Block 20" capabilities are being developed by the Kessel Run Experimentation Lab (KREL); an organic Air Force software development MTA effort. The Marine Corps will primarily inherit the Air Force's software suite called the Kessel Run All Domain Operations Suite (KRADOS) - formerly C2AOS-C2IS - from the larger AOC-WS upgrade efforts. The KRADOS product will replace legacy TBMCS software as the joint ABM capability for the execution of the Air Battle Plan (ABP). As the USAF leads the development of its replacement for their TBMCS-Force Level capability, the Marine Corps is aligning its investments toward the ability to host the new capability in the Marine Corps cyber network and combat operating environments, to include cloud-based technology solutions and network architecture. The Marine Corps TBMCS Next Generation Suite strategy includes developmental and operational testing with joint partner laboratories (i.e. CAOC-X, Langley AFB; 45th Test Squadron) as well as Marine peculiar system of systems interoperability evaluations within its own engineering support centers (i.e. NSWC Crane; MCTSSA, Camp Pendleton) and Marine test events. The

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2273 / *Air Ops Cmd & Control (C2) Sys*

Air Force seeks a deployment of the new capability in Q1 FY 2025 of and the Marine Corps plans to stay aligned to this schedule by testing released software in concert with the Air Force but will not dispose of TBMCS-MC until Q4 FY 2026. The Marine Corps will determine replacement of the current legacy TBMCS-MC when testing and evaluation confirms the new system is ready to provide sufficient capability to enable Marines to plan and execute aviation command and control and Air Battle Management operations in a joint environment.

CTN - The USMC's CTN acquisition strategy is to participate in the USN's Cooperative Engagement Capability (CEC) program procurement and testing, making necessary modifications to support the Marine Corps' requirement. CTN is currently conducting a technology refresh (TR) of the CTN system. The TR will address system obsolescence and enable CTN to remain aligned with the development of US Navy CEC Block II (Increment II) and Signal Data Processor (SDP-Next) upgrades as well as maintain CEC interoperability which is vital as CTN is the USMC gateway to Naval Integrated Fire Control-Counter Air (NIFC-CA) that enables the ACE to achieve resiliency of joint air C2 in an Expeditionary Advanced Base Operations (EABO) environment and supports CMC FD initiatives. The TR upgrade will improve CTN components: the Signal Data Processor-Sierra (SDP-S), Compact Solid State Antenna (CSSA), voice communications, and AN/USG-4B Shelters. These upgrades will directly result in improved interfaces with the AN/TPS-80 Ground/Air Task Oriented Radar (G/ATOR) and the Common Aviation C2 System (CAC2S) through displacement of sensor and C2 via RF link and multiple radar connections, providing the Marine Air-Ground Task Force (MAGTF) and Joint Task Force Commanders an improved ground based sensor netting solution that interfaces with the Navy's CEC network.
The USMC Air Combat Element (ACE) Operational Planning Team (OPT) has directed an increase to the CTN Approved Acquisition Objective (AAO) in support of Force Design 2030. CTN will produce and field eight (8) CTN systems, increasing the AAO from 11 to 19 systems in support of Force Design.

RVVT - The RVVT acquisition strategy is to continue integration of Video Down-Link (VDL) systems into new and existing sensor platforms by enhancing the encryption, range, and reducing the power and weight requirements in order to support existing and planned capabilities supporting targeting and fires activities. Efforts to integrate Full Motion Video (FMV) to support Joint Fires Observers (JFOs) and Joint Terminal Attack Controllers (JTACs) is an ongoing requirement to maintain interoperability with new and existing sensor systems.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*	Project (Number/Name) 2273 / *Air Ops Cmd & Control (C2) Sys*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Years Cumulative Funding	Various	VARIOUS : VARIOUS	267.138	0.000		0.000		0.000		-		0.000	0.000	267.138	-
CTN Engineering Devlopment	C/CPFF	NAVSEA PEO IWS : Washington, DC	25.287	4.595	Feb 2023	6.157	Feb 2024	5.151	Feb 2025	-		5.151	Continuing	Continuing	Continuing
ABM Product Development	C/FFP	NSWC Crane : Crane, IN	1.722	2.437	Nov 2022	1.772	Nov 2023	2.063	Nov 2024	-		2.063	0.000	7.994	-
RVVT	WR	NAWC/China Lake : China Lake, CA	1.300	0.018	Jan 2023	0.023	Nov 2023	0.024	Dec 2024	-		0.024	0.000	1.365	-
		Subtotal	295.447	7.050		7.952		7.238		-		7.238	Continuing	Continuing	N/A

Remarks

CTN: The decrease from FY 2024 to FY 2025 is due to the reduction of needed scope to continue the development, integration, test, and certification activities required for CTN integration.
ABM: The funding increase from FY 2024 to FY 2025 is for the continued development of the hosting environment as a part of the continued maturation and development of ABM's next generation system.
RVVT: The increase from FY 2024 to FY 2025 is due to inflation costs standalone video player for intel configuration.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Years Cumulative Funding	Various	VARIOUS : VARIOUS	47.878	0.000		0.000		0.000		-		0.000	0.000	47.878	-
CTN Engineering Support	WR	NSWC : Dahlgren, VA	7.888	0.000		0.725	Nov 2023	0.000		-		0.000	0.000	8.613	-
CTN Engineering Support	Various	Travel-TAD : Not Specified	1.213	0.026	Oct 2022	0.052	Oct 2023	0.051	Oct 2024	-		0.051	Continuing	Continuing	Continuing
CTN Engineering Support	WR	NSWC : Crane, IN	0.000	0.000		0.308	Oct 2023	0.109	Oct 2024	-		0.109	0.000	0.417	-
ABM Engineering Support	Various	Travel - TAD : Not Specified	0.315	0.096	Oct 2022	0.059	Oct 2023	0.032	Oct 2024	-		0.032	0.000	0.502	-
ABM C2 SME support	C/FFP	NSWC : Crane, IN	0.415	0.000		0.000		0.324	Nov 2024	-		0.324	0.000	0.739	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*	Project (Number/Name) 2273 / *Air Ops Cmd & Control (C2) Sys*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ABM C2 SME support	C/CPFF	DTIC : Fort Belvoir, VA	1.227	0.929	Nov 2022	0.000		0.000		-		0.000	0.000	2.156	-
ABM C2 SME support	WR	NSWC : Indian Head, MD	0.000	0.000		0.276	Dec 2023	0.347	Dec 2024	-		0.347	0.000	0.623	-
		Subtotal	58.936	1.051		1.420		0.863		-		0.863	Continuing	Continuing	N/A

Remarks

CTN: The decrease from FY 2024 to FY 2025 is due a reduction of engineering support for CSSA enhancements and MEIC tech refresh efforts.
ABM: The increase from FY 2024 to FY 2025 is due to engineering support for the transition to the next suite of TBMCS-MC.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation (OT&E)	Various	VARIOUS : VARIOUS	59.222	0.000		0.000		0.000		-		0.000	0.000	59.222	-
Developmental Test & Evaluation (DT&E)	WR	NSWC Corona : Corona, CA	3.219	0.851	Nov 2022	0.952	Nov 2023	0.600	Nov 2024	-		0.600	0.000	5.622	-
Operational Test & Evaluation (OT&E)	C/CPFF	NAVSEA PEO IWS : Washington DC	6.366	2.785	Dec 2022	1.803	Dec 2023	0.723	Dec 2024	-		0.723	0.000	11.677	-
Developmental Test & Evaluation (DT&E)	WR	NSWC Dahlgren : Dahlgren, VA	1.542	0.905	Nov 2022	0.940	Nov 2023	0.700	Nov 2024	-		0.700	0.000	4.087	-
Operational Test & Evaluation (OT&E)	WR	NSWC : Crane, IN	2.996	0.234	Jun 2023	0.561	Jun 2024	0.110	Jun 2025	-		0.110	0.000	3.901	-
Developmental Test & Evaluation (DT&E)	C/FFP	NSWC Indian Head : Indian Head, MD	0.694	1.104	Jun 2023	0.924	Jun 2024	0.904	Jun 2025	-		0.904	0.000	3.626	-
Operational Test & Evaluation (OT&E)	WR	MCOTEA : Quantico, VA	1.220	0.000		0.000		0.000		-		0.000	0.000	1.220	-
Developmental Test & Evaluation (DT&E)	C/FFP	NSWC Crane : Crane, IN	1.421	0.000		0.000		0.000		-		0.000	0.000	1.421	-
Developmental Test & Evaluation (DT&E)	C/FFP	MCTSSA : Camp Pendleton, CA	0.740	0.000		0.921	Jun 2024	0.416	Jun 2025	-		0.416	0.000	2.077	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*	Project (Number/Name) 2273 / *Air Ops Cmd & Control (C2) Sys*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	77.420	5.879		6.101		3.453		-		3.453	0.000	92.853	N/A

Remarks

CTN: The decrease from FY 2024 to FY 2025 is due to the reduction of scope for SDP Next development and testing as it transitions to production.
ABM: The decrease from FY 2024 to FY 2025 is due to the ramp down of testing and engineering support for transition software & hosting environment development and testing.

Management Services ($ in Millions)

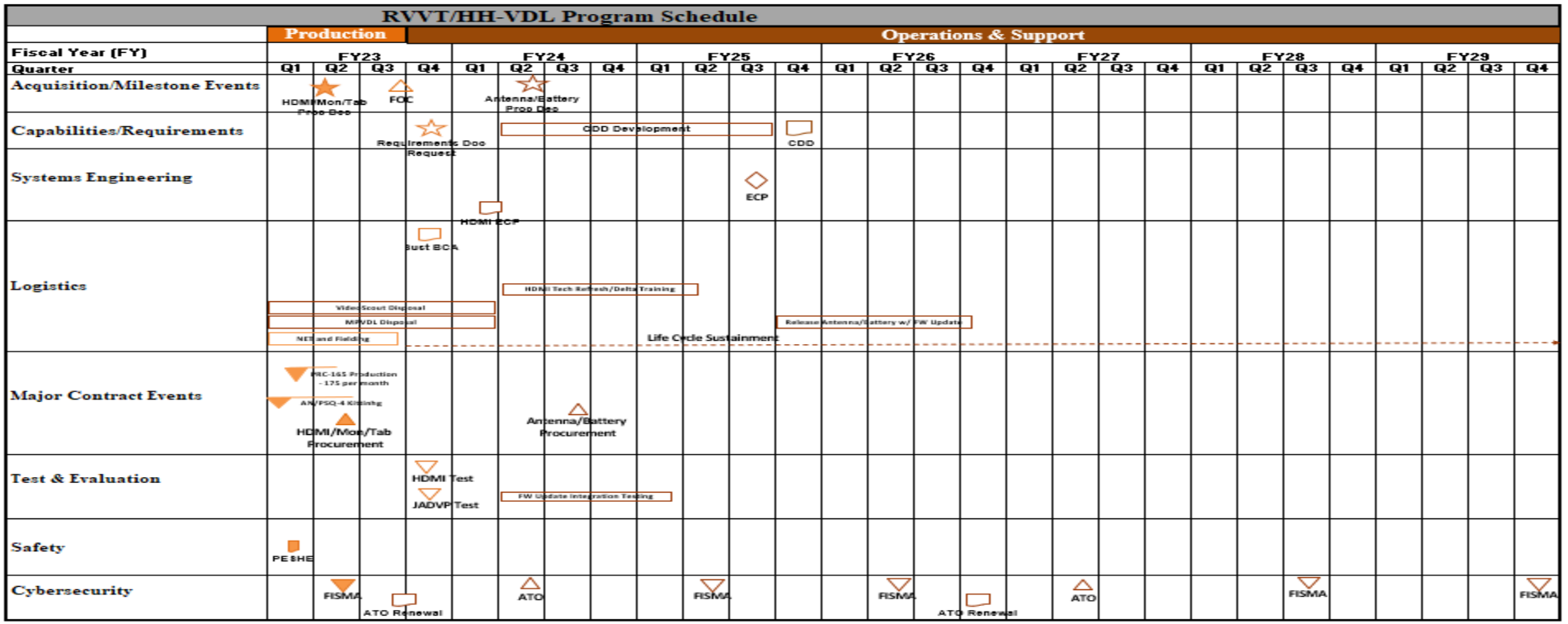
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Years Cumulative Funding	Various	VARIOUS : VARIOUS	36.391	0.000		0.000		0.000		-		0.000	0.000	36.391	-
ABM Program Support	C/FFP	NSWC Crane : Crane, IN	0.652	0.000		0.000		0.000		-		0.000	0.000	0.652	-
		Subtotal	37.043	0.000		0.000		0.000		-		0.000	0.000	37.043	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	468.846	13.980		15.473		11.554		-		11.554	Continuing	Continuing	N/A

Remarks

The decrease from FY 2024 to FY 2025 is due to engineering support for CSSA enhancements and MEIC tech refresh efforts, a reduction of scope for SDP Next development and testing, and a reduction of scope for the development, integration, test, and certification activities required for CTN integration.

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2273 / *Air Ops Cmd & Control (C2) Sys*



LEGEND

- ★ MDA Decision Approval (non-Milestone ((MS))
- ▲ MS/Key Acquisition Event
- ◆ Review
- ▬ Documentation
- ▼ Assessment, Proposal

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2273 / *Air Ops Cmd & Control (C2) Sys*

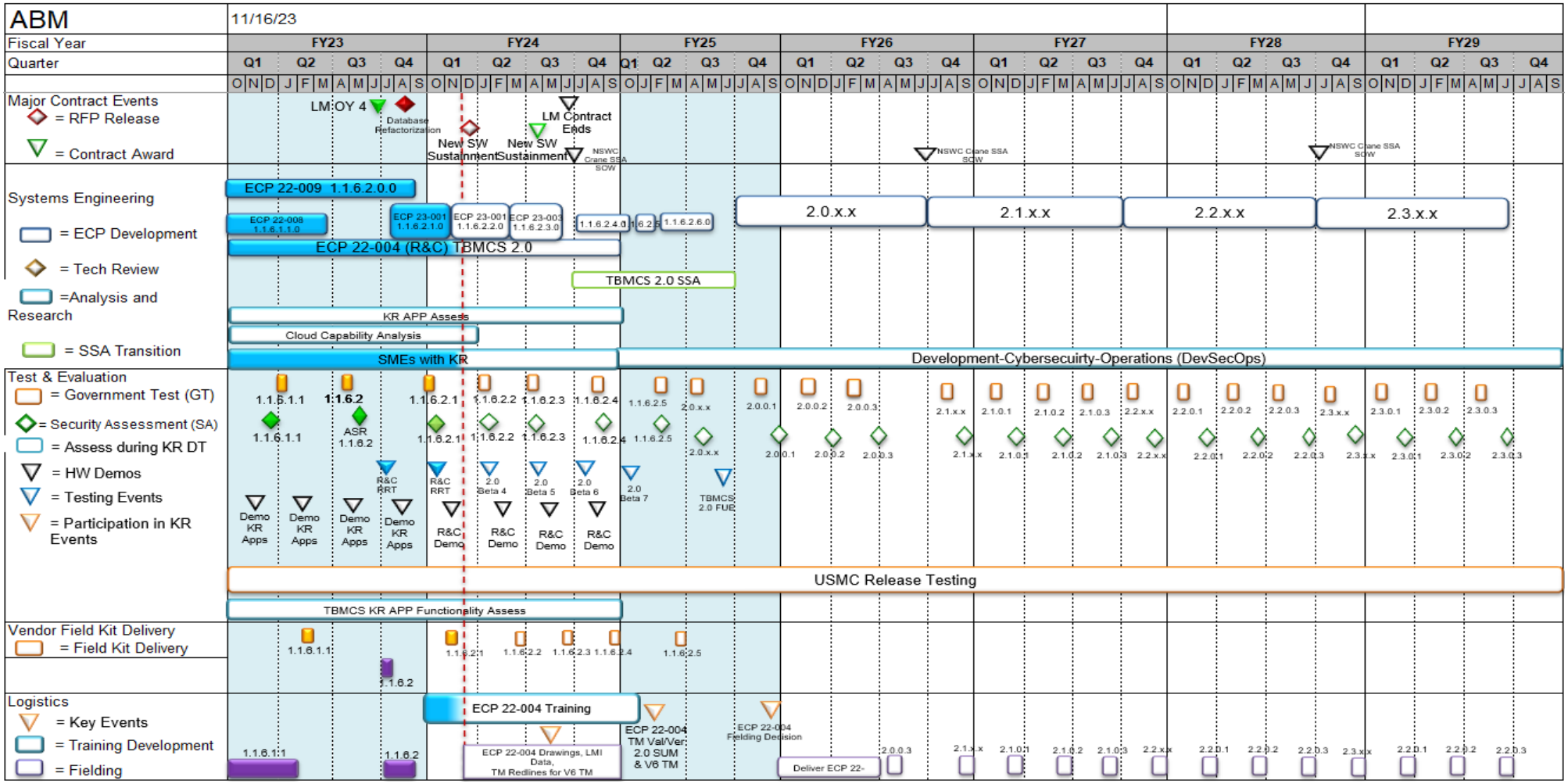


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2273 / *Air Ops Cmd & Control (C2) Sys*

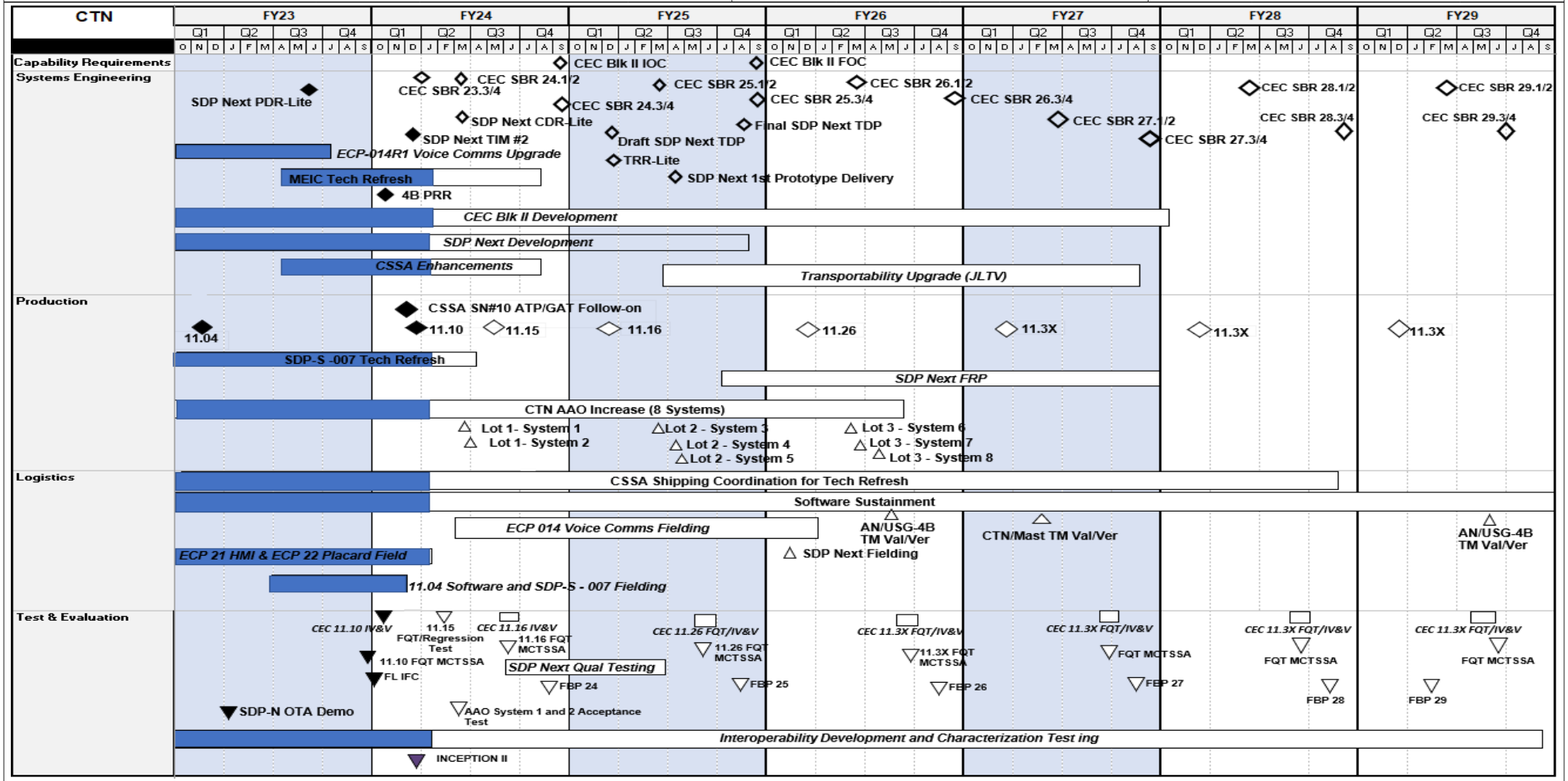


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2273 / *Air Ops Cmd & Control (C2) Sys*

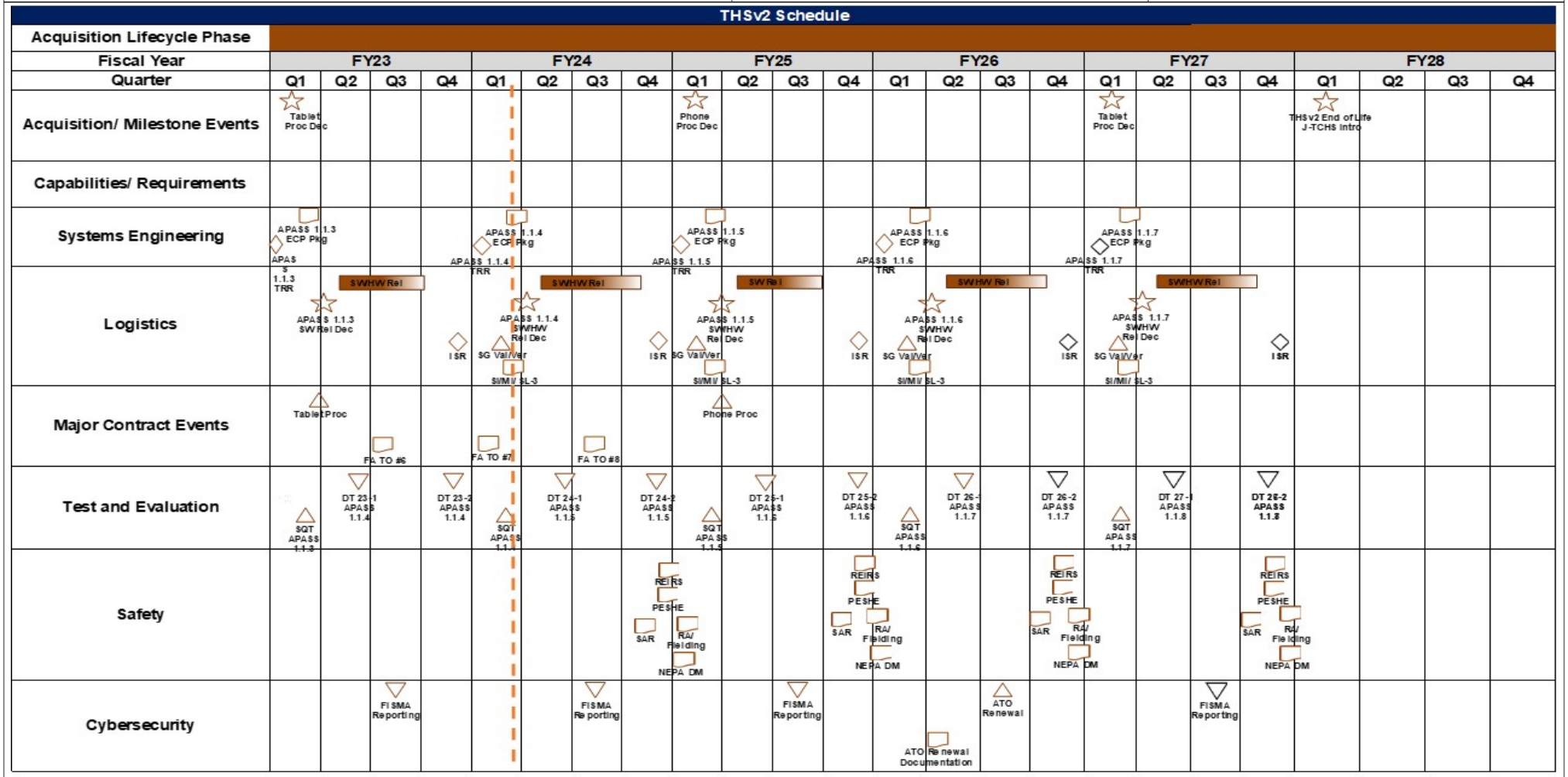


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2273 / *Air Ops Cmd & Control (C2) Sys*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2273				
CTN IPP Schedule: MEIC Technology Refresh	3	2023	4	2024
CTN IPP Schedule: CEC Block II (Increment II) Development	1	2023	1	2028
CTN IPP Schedule: SDP Next Development	1	2023	4	2025
CTN IPP Schedule: CSSA Enhancements	3	2023	4	2024
CTN IPP Schedule: CTN Tech refresh: SDP-S tech refresh	1	2023	4	2024
CTN IPP Schedule: CTN Production	1	2023	3	2026
CTN IPP Schedule: CSSA Sustainment	1	2023	4	2028
CTN IPP Schedule: Software Sustainment	1	2023	4	2029
CTN IPP Schedule: CEC FQT/IV&V	1	2023	4	2029
CTN IPP Schedule: Naval Integrated Fire Control-Counter Air Integration and Testing	4	2023	4	2024
CTN IPP Schedule: Signal Data Processor (SDP) Next qualification testing	3	2024	2	2025
ABM IPP Schedule: Annual Software Update Releases (1.1.6 / 1.1.7)	1	2023	3	2029
ABM IPP Schedule: Annual software Government Test (GT) and Cyber security assessment (SA)	1	2023	3	2029
ABM IPP Schedule: TBMCS-MC Replacement system development Cloud capability analysis	1	2023	1	2024
ABM IPP Schedule: Development-Cybersecuirty-Operations	1	2025	4	2029
ABM IPP Schedule: TBMCS-MC Replacement system development	1	2023	4	2024
ABM IPP Schedule: USMC SW release testing	1	2023	4	2028
ABM IPP Schedule: Continuous SW Delivery	1	2023	4	2029
ABM IPP Schedule: TBMCS-MC ECP Development	1	2023	4	2024
RVVT Schedule: Full Motion Video Implementation Effort	1	2023	4	2023

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*				Project (Number/Name) 2274 / *Command & Control Warfare Sys*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
2274: *Command & Control Warfare Sys*	108.980	28.236	22.969	13.064	-	13.064	23.860	22.330	19.936	21.027	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Marine Electromagnetic Warfare Ground Family of Systems (MEGFoS): MEGFoS is the future of USMC ground electromagnetic warfare being developed to replace the current capability provided by the Multi-Function Electromagnetic Warfare (MFEW) family of systems which provides counter IED and counter UAS capabilities. The MEGFoS family of systems (FoS) will provide Marine Corps Forces the ability to maneuver effectively in the electromagnetic spectrum (EMS) in a peer-to-peer environment. MEGFoS will employ artificial intelligence (AI) to identify signals of interest (SOI) and provides a networked EW capability equipped with low probability of intercept (LPI) and low probability of detection (LPD) antennas enabling the ability to sense and make sense of the (EMS) throughout the area of operations. MEGFoS provides electromagnetic warfare operators the ability to conduct electromagnetic fires on site, remotely attack targets identified via systems employed by incidental operators, conduct coordinated techniques across multiple systems, or pass target data to other systems to attack with kinetic fires. MEGFoS provides state of the art electromagnetic attack (EA), electromagnetic support (ES), and electromagnetic protection capabilities throughout the EMS. MEGFoS enables an exquisite ability to deny, disrupt, and degrade adversary communications, navigation, RADAR, and other systems operating in the EMS. The ability for instantaneous sensing, identification, exploitation, and disruption of enemy capabilities using non-traditional attack vectors and techniques to defeat sources of intentional and unintentional radiated electromagnetic energy ensures a technological edge to the Marine Corps in a peer-to-peer environment. The MEGFoS detects and protects friendly spectrum access; senses and identifies spectrum usage; and disrupts the adversary's decision cycle. The future operations solution is fulfilled by MEGFoS, a critical Force Design program enabling the Expeditionary Advanced Base Operations (EABO) construct, facilitating ground-based EW in support of Force Design 2030.

MEGFoS is being developed using the C5ISR/EW Modular Open Suite of Standards (CMOSS) and Sensor Open Systems Architecture (SOSA) standards (in coordination with the Army, Navy, and Air Force) that will provide an open architecture HW & SW non-proprietary platform to host "best of breed" capabilities from across industry. This construct will eliminate multiple proprietary "green boxes" carried by Marines lowering the weight and power requirements in operations, reduce training burdens, lower procurement costs, and reduce sustainment costs. MEGFoS will be employed throughout the FMF, the largest number of systems will be employed by the ground combat element and in Littoral Combat Regiments (LCR). MEGFoS provides coordinated EW in support of Fires and Maneuver, Force Protection, Spectrum Management, and Battlespace Awareness.

The Marine Corps is seeking to evolve EW capabilities from existing legacy, proprietary EW systems to capabilities for an advanced multi-function electromagnetic warfare mission focused on supporting Electromagnetic Spectrum Operations (EMSO). MEGFoS is the future for team portable, vehicle mounted and dismounted advanced tactical warfare capabilities supporting the EMSO concept. The program is essential for ensuring Marines have the ability to protect friendly use of spectrum, sense all spectrum usage in an area of responsibility, and to target adversaries inside spectrum with the intent to deny, delay, or degrade an adversary's decision-making cycle.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2274 / *Command & Control Warfare Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: MEGFoS - Product Development	10.659	9.579	5.207	0.000	5.207
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue integration of the developed common, open hardware backplane based off the C4ISR Modular Open Suites of Standards (CMOSS), and a Sensor Open Systems Architecture (SOSA). - Continue development of hardware components that will be interoperable across the mounted, dismounted and team portable systems for MEGFOS. -Continue development of networking capability for dismounted and team portable systems to provide a high level of situational awareness to commanders and Marines at the company level and fully realize advanced EA/ES capabilities for MEGFoS. -Complete development of MEGFoS Dismounted Systems. -Continue integration of Science and Technology (S&T) efforts into MEGFoS. -Continue development of MEGFoS Mounted Systems. -Continue development of techniques to counter emerging threats.					
FY 2025 Base Plans: - Continue integration and development of common, open hardware backplane based off the C4ISR Modular Open Suites of Standards (CMOSS), and a Sensor Open Systems Architecture (SOSA). - Continue development of hardware components that will be interoperable across the mounted, dismounted and team portable systems for MEGFoS. - Complete development of networking capability for dismounted and team portable systems to provide a high level of situational awareness to commanders and Marines at the company level and fully realize advanced EA/ES capabilities for MEGFoS. -Complete development of MEGFoS Dismounted Systems. -Continue integration of Science and Technology (S&T) efforts into MEGFoS. -Continue development of MEGFoS Mounted Systems. -Continue development of techniques to counter emerging threats.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2274 / *Command & Control Warfare Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Initiate integration of advanced EW capabilities into the MEGFoS CMOSS based family of systems. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The decrease from FY 2024 to FY 2025 reflects the completion of the development of networking capability for dismounted and team portable systems to provide a high level of situational awareness to commanders and Marines at the company level and fully realize advanced EA/ES capabilities for MEGFoS.					
Title: MEGFoS - Support	5.888	10.709	5.170	0.000	5.170
Articles:	-	-	-	-	-
FY 2024 Plans: -Continue providing systems engineering support for the MFEW (mounted and dismounted), MEGFoS Hardware backplane, and Universal Test Sets by analyzing performance impacts resulting from compatibility, technology and software updates and environmental risks. -Continue MEGFoS dismounted development support, providing systems engineering support for MEGFoS dismounted and integration support of developed S&T effort into MEGFoS dismounted. -Continue MEGFoS mounted development support, providing systems engineering support for MEGFoS mounted and integration support of developed S&T efforts into MEGFoS mounted. ***FY 2025 Base Plans:*** -Continue providing systems engineering support for the MFEW (mounted and dismounted), MEGFoS Hardware backplane, and Universal Test Sets by analyzing performance impacts resulting from compatibility, technology and software updates and environmental risks. -Complete MEGFoS dismounted development support, providing systems engineering support for MEGFoS dismounted and integration support of developed S&T effort into MEGFoS dismounted. -Complete MEGFoS mounted development support, providing systems engineering support for MEGFoS mounted and integration support of developed S&T efforts into MEGFoS mounted. -Initiate MEGFoS Family of System Engineering support to identify emerging technology to support MEGFoS requirements, support integration, and analyze performance impacts resulting from compatibility, technology and software updates and environmental risks. ***FY 2025 OCO Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2274 / *Command & Control Warfare Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The decrease from FY 2024 to FY 2025 reflects the completion of the development and integration of the initial MEGFoS mounted and dismounted capabilities. Support efforts moving forward will focus on the integration of additional capabilities and supporting the ongoing development of capability to maintain a technological advantage over our adversaries.					
Title: MEGFoS - Test and Evaluation	11.689	2.681	2.687	0.000	2.687
Articles:	-	-	-	-	-
FY 2024 Plans: -Continue developmental test of MEGFoS Architectures in relevant environments. -Continue testing new and developing load-sets ability to exploit or defeat advanced and emerging threat systems. -Complete MEGFoS Team Portable Operational Demonstration, in preparation for Rapid Prototyping outcome decision. -Continue MEGFoS dismounted developmental testing. -Initiate developmental testing of integrated MEGFoS research and development efforts. -Initiate developmental systems engineering testing for MEGFoS mission loads and software cyber security patches. -Initiate operational testing for the MEGFoS mounted variant.					
FY 2025 Base Plans: -Continue developmental test of MEGFoS Architectures in relevant environments. -Continue testing new and developing load-sets ability to exploit or defeat advanced and emerging threat systems. -Complete MEGFoS dismounted developmental testing. -Continue developmental testing of integrated MEGFoS research and development efforts. -Continue developmental systems engineering testing for MEGFoS mission loads and software cyber security patches. -Complete operational testing for the MEGFoS mounted variant.					
FY 2025 OCO Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2274 / *Command & Control Warfare Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** There is no significant change from FY 2024 to FY 2025.					
Accomplishments/Planned Programs Subtotals	28.236	22.969	13.064	0.000	13.064

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• PMC/6520: *EOD Systems - MEGFoS*	113.116	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• PMC/4367: *Electro Magnetic Spectrum Operations (EMSO) - MEGFoS*	0.000	177.270	182.465	-	182.465	84.554	87.697	85.420	91.275	0.000	708.681

Remarks

MEGFoS procurement transitions from Budget Line Item 6520 EOD Systems to Budget Line Item 4367 Electro Magnetic Spectrum Operations (EMSO) beginning FY 2024.

Project 2274 funding FY 2020 - FY 2023 totaling $33.150M reflects funding associated with MEGFoS Middle Tier Acquisition (MTA) for rapid prototyping in addition to RDTE Project C796 FY 2022 funding totaling $15.100M.

MTA Funding RDTEN/0206313M/2274:
FY 2020: $3.922M
FY 2021: $5.648M
FY 2022: $11.604M
FY 2023: $11.977M

MTA Funding RDTEN/0206313M/C7964:
FY 2022: $15.100

D. Acquisition Strategy

Marine Electromagnetic Warfare Ground Family of Systems (MEGFoS): The MFEW programs will continue to develop new counter techniques, improve capabilities, enhance software and develop upgrades to counter evolving threats and prevent technology obsolescence. Activities include waveform development, non-recurring

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
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engineering for system enhancements, capability upgrades, and the testing and government studies required to support these changes. In FY 2021, the initial 300 MFEW Mounted systems began issuance to the FMF. An additional 286 MFEW Mounted systems were procured between FY 2022-2024, with a final purchase of 107 systems planned for 2024. MFEW systems are based on a USON requirement and will be augmented by the MEGFoS systems starting in FY 2025. MEGFoS will provide a significant improvement in capability when compared to MFEW and what is commercially available today. The MEGFoS Team Portable system was authorized for Middle Tier of Acquisition Rapid Prototyping in 3Q FY 2020, with planned prototyping completion in 1Q FY 2024. Upon successful prototyping of the Team Portable variant, MEGFoS will procure 49 systems. The intent is to use the MEGFoS Team Portable solution as the basis for the Dismounted and Mounted variants. Procurement of the Dismounted systems, planned for FY 2024-2025, while the MEGFoS Mounted systems are being developed. The iterative development approach for MEGFoS, focusing on a common hardware and software standard, provides the opportunity to integrate all EW sensors into a common operating picture, allowing all elements of the MAGTF to gain and maintain awareness in the electromagnetic spectrum. This will include, but is not limited to, Cyber, Communications, Signature Management, and advanced signals detection and attack techniques.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MEGFoS	TBD	MCSC : QUANTICO, VA	4.123	0.000	Jul 2023	5.906	Jul 2024	0.000		-		0.000	Continuing	Continuing	Continuing
MEGFoS	TBD	TBD : TBD	0.000	0.000	Dec 2022	0.000		0.000		-		0.000	0.000	0.000	-
MEGFoS	WR	NIWC-LANT : CHARLESTON,SC	6.470	0.000	Oct 2022	0.605	Oct 2023	2.407	Oct 2024	-		2.407	Continuing	Continuing	Continuing
MEGFoS	C/CPFF	NIWC-LANT : CHARLESTON, SC	8.723	1.419	Jun 2023	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
MEGFoS	C/CPFF	JHU/APL : LAUREL, MD	3.026	0.491	Dec 2022	2.308	Dec 2023	0.000		-		0.000	Continuing	Continuing	Continuing
MEGFoS	WR	NSWC-CRANE : CRANE, IN	0.000	0.686	Nov 2022	0.760	Dec 2023	0.500	Dec 2024	-		0.500	0.000	1.946	-
MEGFoS	C/CPFF	MILTECH : MILTECH	0.000	7.870	Apr 2023	0.000		2.300	Apr 2025	-		2.300	Continuing	Continuing	Continuing
Prior Years Cumulative	Various	VARIOUS : VARIOUS	32.251	0.193	Oct 2022	0.000		0.000		-		0.000	0.000	32.444	-
		Subtotal	54.593	10.659		9.579		5.207		-		5.207	Continuing	Continuing	N/A

Remarks

The Product Development decrease from FY 2024 to FY 2025 reflects the completion of the development of networking capability for dismounted and team portable systems to provide a high level of situational awareness to commanders and Marines at the company level and fully realize advanced EA/ES capabilities for MEGFoS.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MEGFoS	WR	NIWC-LANT : CHARLESTON, SC	1.502	4.898	Dec 2022	5.209	Dec 2023	4.010	Dec 2024	-		4.010	Continuing	Continuing	Continuing
MEGFoS	C/CPFF	NIWC-LANT : CHARLESTON	2.890	0.000	Nov 2022	4.750	Nov 2023	0.910	Nov 2024	-		0.910	Continuing	Continuing	Continuing
MEGFoS	TBD	TBD : TBD	1.424	0.000	Jun 2023	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
MEGFoS	WR	NSWC-CRANE : CRANE, IN	1.004	0.335	Jun 2023	0.750	Jun 2024	0.250	Jun 2025	-		0.250	0.000	2.339	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Years Cumulative Funding	Various	VARIOUS : VARIOUS	7.849	0.655	Mar 2023	0.000		0.000		-		0.000	0.000	8.504	-
		Subtotal	14.669	5.888		10.709		5.170		-		5.170	Continuing	Continuing	N/A

Remarks

The Support decrease from FY 2024 to FY 2025 reflects the completion of the development and integration of the initial MEGFoS mounted and dismounted capabilities. Support efforts moving forward will focus on the integration of additional capabilities and supporting the ongoing development of capability to maintain a technological advantage over our adversaries.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	MIPR	YPG : YUMA, AZ	1.082	0.193	Oct 2022	0.575	Oct 2023	0.725	Oct 2024	-		0.725	Continuing	Continuing	Continuing
Operational Test & Evaluation (OT&E)	WR	NIWC-CD : CRANE, IN	1.099	0.483	Oct 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	NIWC-LANT : CHARLESTON, SC	2.196	0.305	Oct 2022	1.064	Dec 2023	0.380	Dec 2024	-		0.380	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	C/CPFF	NIWC-LANT : CHARLESTON, SC	0.150	4.242	Jun 2023	1.042	Aug 2024	1.582	Aug 2025	-		1.582	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	C/CPFF	MCSC : QUANTICO, VA	0.200	0.000	Jun 2023	0.000		0.000		-		0.000	0.000	0.200	-
Developmental Test & Evaluation (DT&E)	MIPR	DLA : DLA	0.000	6.466	Jun 2023	0.000		0.000		-		0.000	0.000	6.466	-
Developmental Test & Evaluation (DT&E)	Various	VARIOUS : VARIOUS	21.931	0.000	Oct 2022	0.000		0.000		-		0.000	0.000	21.931	-
		Subtotal	26.658	11.689		2.681		2.687		-		2.687	Continuing	Continuing	N/A

Remarks

No significant change.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Years Cumulative Funding	Various	VARIOUS : VARIOUS	13.060	0.000		0.000		0.000		-		0.000	0.000	13.060	-
		Subtotal	13.060	0.000		0.000		0.000		-		0.000	0.000	13.060	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	108.980	28.236		22.969		13.064		-		13.064	Continuing	Continuing	N/A

Remarks

Overall decrease from FY 2024 to FY 2025 is primarily attributed to the completion of the development and integration of the initial MEGFoS mounted and dismounted capabilities.

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
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MFEW Family of Systems (FoS)

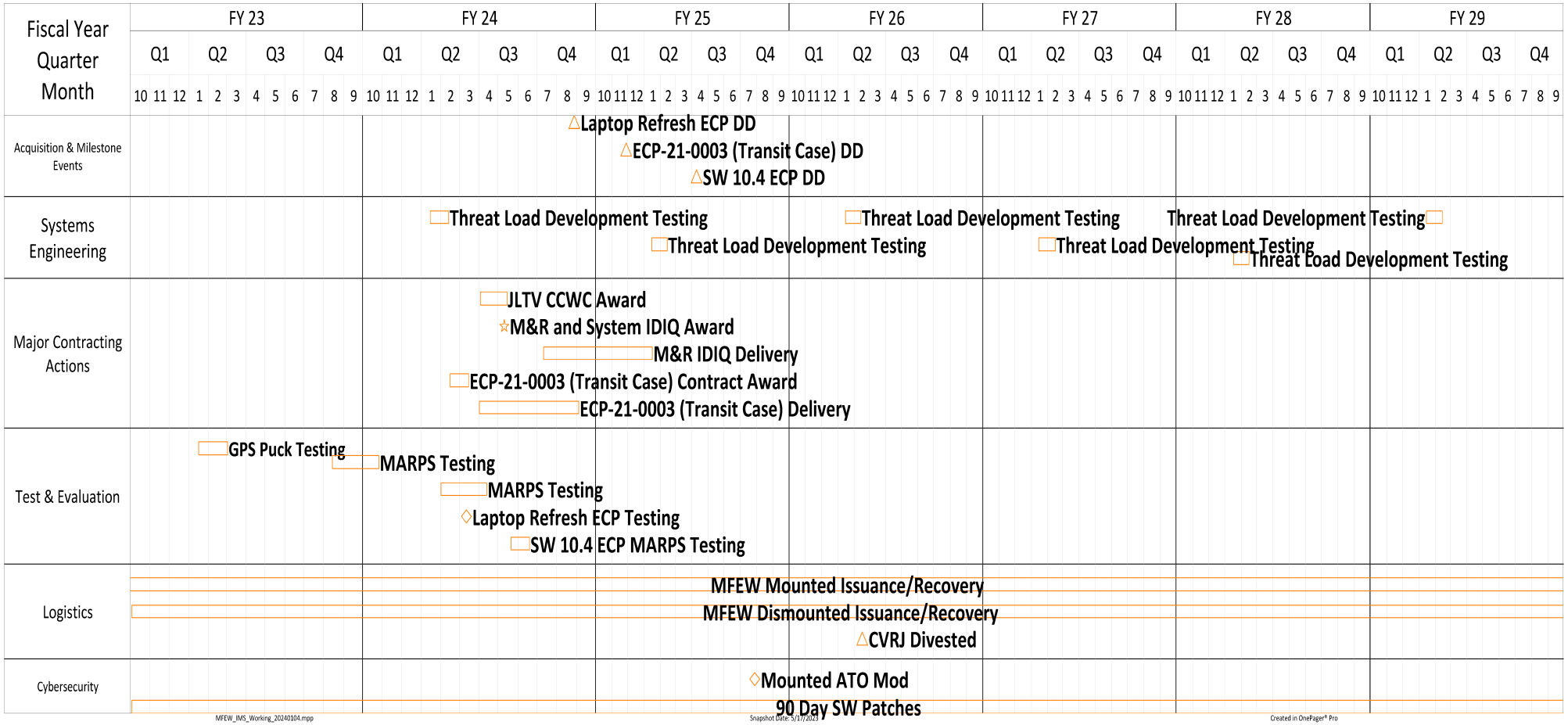

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
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MEGFoS Team Portable, Backpack, & Mounted Variants

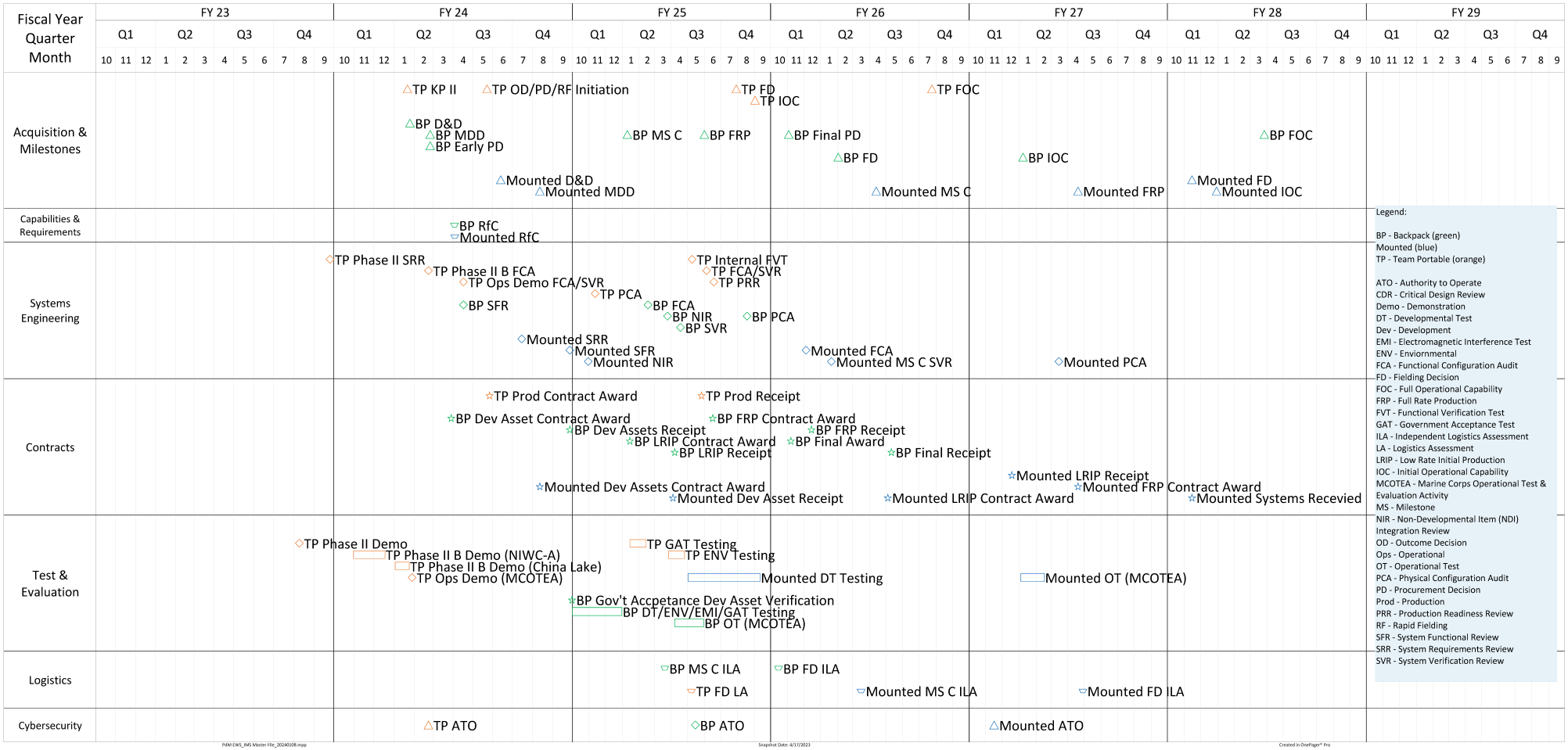

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2274 / *Command & Control Warfare Sys*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2274				
MFEW Mounted and Dismounted Issuance & Recovery	1	2023	1	2029
MEGFoS Team Portable Procurement Decision	3	2024	3	2024
MEGFoS Dismounted Early Procurement Decision (Backpack)	2	2024	2	2024
MEGFoS Team Portable Fielding Decision	4	2025	4	2025
MEGFoS Mounted MS C	3	2026	3	2026
MEGFoS Mounted Fielding Decision	1	2028	1	2028

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*				Project (Number/Name) 2275 / *Marine Corps Tactical Radio Systems*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
2275: *Marine Corps Tactical Radio Systems*	107.110	17.352	47.985	35.173	-	35.173	29.982	25.895	17.309	17.661	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Tactical Communications Modernization (TCM): TCM contains multiple CMC Force Design programs. TCM supports the research, testing, and evaluation of non-developmental tactical voice and data radio systems for mounted and dismounted operations within all echelons of the Marine Air-Ground Task Force. The testing will ensure the communication systems are joint networking capable and support National Security Agency (NSA) Communications Security (COMSEC) Modernization requirements. The funding provides contracted engineering support, facility test support, and test reporting for multiple systems. These include the Multi-Band Radio's (MBR II), Mobile User Objective System (MUOS), High Frequency Radio II (HFR II), Multi-Channel Radio Family of System (MCR FoS) [Multi-Channel Man Pack (MCMP) and Multi-Channel Handheld (MCHH)] radios, Ground Link-16, antennas, current systems requiring updates or obsolescence issues, and Joint Enterprise Network Manager (JENM). TCM also funds portions of developmental waveforms, Systems Planning Engineering Evaluation Device (SPEED) is a USMC government-off-the-shelf software program for communications planning and analysis. SPEED provides the Marine Corps and other services with a standard set of software tools used to perform radio link engineering and propagation analysis studies in support of a tactical environment.

Networking on the Move (NOTM): NOTM is a critical CMC Force Design program, essential to achieving USMC Force Design imperatives by 2030. NOTM is a critical enabler for "Command and Control (C2) in a Degraded Environment," a Force Design 2030 Line of Effort. NOTM enables persistence inside contested environments, and the conduct of sea denial operations as part of the Naval Expeditionary Force. NOTM achieves this by providing a state-of-the-art turn-key open architecture solution that enables forces to exercise C2 across operational domains - land, sea, air, and while transitioning between domains, by providing terrestrial line of sight and beyond line of sight satellite communication gateway services, and access to services and applications that enable forces to exercise C2 while transitioning between static and mobile positions. NOTM provides critical radio, voice, C2 datalinks to key leaders in dynamic environments across multiple domains. The USMC has two NOTM programs, the NOTM Ground Combat Vehicle (NOTM-GCV), and the NOTM Airborne (NOTM-A) with requirements to field kits for the following platforms: NOTM-GCV variants include High Mobility Multipurpose Wheeled Vehicle (HMMWV), Joint Light Tactical Vehicle (JLTV), Amphibious Assault Vehicle (AAV), Amphibious Combat Vehicle - Command and Control Variant (ACV-C), and Ultra-Light Tactical Vehicle (ULTV). NOTM-Air variants include systems for integration onto USMC KC-130J Hercules and MV-22 Osprey aircraft. One NOTM system for HMMWV and JLTV consists of three vehicles per system (1 Point of Presence (POP) and 2 Staff Vehicles). The HWWMV systems are being divested and will transition to JLTV system via JLTV retrofit kits. The AAV variant consists of two vehicles per system (1) Point of Presence (POP) and (1) Staff Vehicles). Each NOTM system for ULTV, ACV-C, consists of one vehicle per system (POP vehicle). Each NOTM-A consists of one aircraft per system (KC-130J/MV-22). NOTM also supports Navy shipboard integration by installing NOTM Tactical Entry Point (TEP) Modem Kits on Amphibious L-class ships to provide services to Marine Littoral Regiment (MLR) forces ashore. COSMOS details are held at a higher classification.

Wideband Satellite Communications (WSATCOM) (formerly VSAT): This is a critical CMC Force Design program. WSATCOM is an integrated satellite communications family of systems (FoS) that is the primary beyond line-of-sight (BLOS) communications platform for the MAGTF. This FoS supports the expeditionary advanced base operations concept by enabling communication throughout all levels of distributed MAGTF operations. WSATCOM systems' modular architecture supports technology

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insertion through scalable and flexible SATCOM technologies. WSATCOM uses commercial Ku and military X and Ka frequency bands to provide BLOS connectivity to support intra-MAGTF communications (NIPRNET, SIPRNET, telephony) at all levels of the MAGTF. It directly and indirectly supports the seven functions of information operation concepts, enabling commanders at all levels to reliably command and control forces and to support a wide range of information operation missions. Individuals of this FoS include Very Small Aperture Terminal (VSAT) Small, Medium, and Large. These systems are being replaced by the Marine Corps Wide-Band SATCOM (MCWS) Expeditionary (MCWS-X), and Light and Heavy (MCWS-L/H) and FY 2024 will focus on testing of the MCWS-L/H test assets systems.

Secure Mobile Anti-Jam Reliable Tactical-Terminal (SMART-T): SMART-T provides tactical users with protected data and voice via Advanced Extremely High Frequency (AEHF) satellite communications. The SMART-T system is transported on High Mobility Multipurpose Wheeled Vehicles (HMMWVs), providing MAGTF Commanders a secure, survivable, long-haul, low/medium data rate communications link not subject to terrain masking and horizon limitations. The SMART-T is the only USMC asset that possesses a SATCOM AEHF capability.

Terrestrial Wideband Transmission Systems (TWTS): This is a CMC Force Design program. TWTS is a portfolio that provides the Fleet Marine Force with the capabilities of high throughput secure Beyond Line of Sight (BLOS) and Line of Sight (LOS) terrestrial digital data transmission. TWTS consists of systems that are Leading Readiness Indicators for the Marine Corps Force Design Effort supporting the conduct of Command and Control in a degraded environment. The Next Generation Troposcatter (NGT) will provide the BLOS capability, which is currently in the Engineering and manufacturing Development Phase. The NGT capability will provide significantly higher bandwidth communications over longer distances compared to the Army/Navy Transportable Radio Communications-170A (AN/TRC-170A) that has been in operations and sustainment since 1992. The Line-of-Sight Radio System Family of Systems (LRS FoS) which began fielding in FY 2022, and an optical communications system. The LRS FoS will provide Naval integration over long distances with both shore-to-shore and shore-to-ship connectivity. This capability is critical to the Force Design goals of establishing resilient communications architectures capable of closing kill webs in austere environments. LRS FoS includes a Transit Case based system for operational flexibility and the Tactical Elevated Antenna Mast II (TEAMS II) which provides the antenna height needed for transmitting over significant distances. The optical communications system operates outside of the Radio Frequency spectrum to provide Marines with an extremely high data rate communications pathway. The capabilities within the TWTS portfolio will modernize the Marine Corps ability to connect networks over long distances in contested and satellite denied environments.

Test, Evaluation, & Engineering Environment (TEEE) - Marine Corps Tactical Systems Support Activity (MCTSSA): TEEE supports FD2030, Expeditionary Advanced Base Operations (EABO), Recon and Counter Recon (RXR), and "Stand-In Forces" through developmental testing, engineering and experimentation efforts focused on CJADC2, Naval integration of systems, and C5I systems. It provides the only Marine Corps organic, mission funded facility for MAGTF C5I testing and engineering. The environment facilitates Joint Communications Exercises, Joint Interoperability Testing, Systems of System testing, and is the sole Marine Corps solution for Link-16 Tactical Data Link Networks, which tests air-to-air/ship/shore targeting and messaging before Marine/Navy use in theater. The environment is essential to evaluating more than 50 USMC and Joint C5I systems in order to ensure the effectiveness of these systems and performance in the FMF and is the hub for experimentation in support of Marine Corps FD2030 initiatives.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: TCM: Product Development	5.218	22.424	22.095	0.000	22.095

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue development efforts related to Multi-Band Radio II (MBR II) replacement systems. - Continue funding the Marine Corp's fair share cost for development of the Joint Enterprise Network Manager (JENM) application required for MUOS. - Initiate SPEED software development efforts. - Initiate Waveform Modernization efforts to include MUOS, SATURN, SINCGARS Frequency Hop, and WREN.					
FY 2025 Base Plans: - Continue development efforts related to Multi-Band Radio II (MBR II) replacement systems. - Continue funding the Marine Corp's fair share cost for development of the Joint Enterprise Network Manager (JENM) application required for MUOS. - Continue SPEED software development efforts. - Continue Waveform Modernization efforts to include MUOS, SATURN, SINCGARS Frequency Hop, and WREN.					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease in funding of $0.329M from FY2024 to FY2025 is primarily attributed to reduced development efforts related to MBR II.					
Title: TCM: Engineering and Program Support	2.022	3.632	2.444	0.000	2.444
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue engineering and support efforts for USMC Tactical radios, such as Multi-Channel Radios, High Frequency Radios, Multi Band Radios, SPEED, Ground Link-16, as well as complete crypto modernization efforts.					
FY 2025 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Continue engineering and support efforts for USMC Tactical radios, such as Multi-Channel Radios, High Frequency Radios, Multi Band Radios, SPEED, Ground Link-16, ODESA/APNA as well as complete crypto modernization efforts. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease in funding of $1.188M from FY2024 to FY2025 reflects lifecycle support needs for Tactical Communications Modernization.					
Title: TCM: Test and Evaluation Support	0.716	0.730	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2024 Plans: - Conduct Ground Link-16 software ECP testing. - Conduct ECP testing for MCMP, MCHH, HFR II, MBR II. ***FY 2025 Base Plans:*** N/A ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to no TCM test events scheduled in FY2025.					
Title: TCM: Management Services	0.737	0.752	0.805	0.000	0.805
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue Support FFRDC engineering and program support for the TCM Family of Systems (FoS), HFR II, MCR FoS, MBR II equipment, legacy equipment reaching obsolescence, and research/testing of new technology. ***FY 2025 Base Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Continue Support FFRDC engineering and program support for the TCM Family of Systems (FoS), HFR II, MCR FoS, MBR II equipment, legacy equipment reaching obsolescence, and research/testing of new technology. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** No significant change from FY2024 to FY2025					
Title: NOTM: Product Development ***Articles:*** ***Description:*** Networking on the Move (NOTM) Research and Development funding supports the design, development, prototyping and Engineering for technology refresh and upgrades, system refreshes and new capabilities. ***FY 2024 Plans:*** - Continue & complete development efforts in support of network and SATCOM resiliency tools, including additional bands. - Complete Development effort for platform agnostic quick disconnect couplings to NOTM GCV components. ***FY 2025 Base Plans:*** - Initiate development efforts in support of multi-band, multi-orbit SATCOM and 5G ECP capability. - Initiate development efforts in support of NOTM-A Technical Refresh. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease from FY2024 to FY2025 reflects completion of development efforts for platform agnostic quick disconnect couplings to NOTM GCV components.	1.845 -	0.728 -	0.652 -	0.000 -	0.652 -
Title: NOTM: Test and Evaluation Support ***Articles:*** ***Description:*** Networking on the Move (NOTM) Test and Evaluation funding supports acquisition testing for design, development, production, engineering and fielding of system variants and equipment upgrades.	1.464 -	0.400 -	0.500 -	0.000 -	0.500 -

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
FY 2024 Plans: - Complete usability evaluation for platform agnostic quick disconnect couplings to NOTM GCV components. - Complete integration and usability testing in support of prototype SATCOM and network management tools/ upgrades, including Transmission Security (TRANSEC) and potential lower profile SATCOM Antennas. ***FY 2025 Base Plans:*** -Initiate and complete M-Code Global Positioning capability testing for NOTM Airborne systems. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase from FY2024 to FY2025 reflects initiation of M-Code Global Positioning capability testing for NOTM Airborne systems.					
Title: COSMOS: Product Development	1.125	8.903	1.390	0.000	1.390
Articles:	-	-	-	-	-
FY 2024 Plans: - Details for COSMOS are held at a higher classification level. ***FY 2025 Base Plans:*** N/A ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** - Details for COSMOS are held at a higher classification level.					
Title: COSMOS: Engineering and Program Support	0.699	1.189	0.860	0.000	0.860
Articles:	-	-	-	-	-
FY 2024 Plans: - Details for COSMOS are held at a higher classification level. ***FY 2025 Base Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
N/A ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** - Details for COSMOS are held at a higher classification level.					
Title: COSMOS: Test and Evaluation Support	1.897	2.783	0.300	0.000	0.300
Articles:	-	-	-	-	-
FY 2024 Plans: - Details for COSMOS are held at a higher classification level. ***FY 2025 Base Plans:*** N/A ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** - Details for COSMOS are held at a higher classification level.					
Title: WSATCOM: Product Development	0.000	2.500	2.500	0.000	2.500
Articles:	-	-	-	-	-
FY 2024 Plans: - Conduct research and development for the following Secure/Assured SATCOM capabilities: Protected Tactical Waveform (PTW), low probability of interception / low probability of detection (LPI / LPD), Polar, Phased Array technology, and SATCOM Diversity. ***FY 2025 Base Plans:*** - Continue research and development for the following Secure/Assured SATCOM capabilities: Protected Tactical Waveform (PTW), low probability of interception / low probability of detection (LPI / LPD), Polar, Phased Array technology, and SATCOM Diversity. ***FY 2025 OCO Plans:*** N/A					
Title: WSATCOM: Engineering and Program Support	0.725	0.790	0.213	0.000	0.213

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Articles:	-	-	-	-	-
FY 2024 Plans: - Produce engineering documentation in support of NIR, FCA, SVR for MCWS-Light and Heavy in preparation for MS-C. - Provide support for development of Test and Evaluation and Cybersecurity documentation. - Provide support to engineering events and documentation development for MCWS FoS ECPs. ***FY 2025 Base Plans:*** - Provide support to engineering events and documentation development for MCWS FoS ECPs. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease from FY 2024 to FY 2025 is due to program support transition to sustainment funding.					
Title: WSATCOM: Test and Evaluation	0.000	1.200	1.048	0.000	1.048
Articles:	-	-	-	-	-
FY 2024 Plans: - Initiate Government Acceptance Testing of MCWS-Light Test Assets. - Initiate developmental testing of MCWS-Light Test Assets. ***FY 2025 Base Plans:*** -Conduct operational testing of MCWS-Light/Heavy Test Assets. -Conduct testing for MCWS-X refresh ECPs. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease from FY 2024 to FY 2025 is due to the conclusion of MCWS-Light/Heavy development testing.					
Title: WSATCOM: Management Services	0.137	0.646	0.656	0.000	0.656
Articles:	-	-	-	-	-
FY 2024 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Conduct acquisition engineering through a FFRDC to support research of Secure/Assured SATCOM. ***FY 2025 Base Plans:*** - Provide engineering and management services for the research and development of a medium earth orbit (MEO) objective capability for the MCWS-X, MCWS-L, and MCWS-H; and subject matter expertise with the development of a Concept of Employment for the MCWS Family of Systems. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** No significant change.					
Title: TWTS: Product Development ***Articles:*** ***FY 2024 Plans:*** - Complete product development for advanced, lightweight, non-traditional cases for TWTS systems. - Continue support of technology scouting, prototype development, and evaluation support for TWTS programs. - Initiate product development of for waveforms and antennas that contribute to system and network resiliency. - Continue technology scouting and prototype development for waveforms and antennas that contribute to system and network resiliency. ***FY 2025 Base Plans:*** - Continue support of technology scouting, prototype development, and evaluation support for TWTS programs. - Continue product development of for waveforms and antennas that contribute to system and network resiliency. - Continue technology scouting and prototype development for waveforms and antennas that contribute to system and network resiliency. - Provide product development support for THC2 ECPs. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase from FY 2024 to FY 2025 reflects the engineering activities necessary for THC2 ECPs.	0.300 -	0.398 -	0.450 -	0.000 -	0.450 -
Title: TWTS: Test and Evaluation ***Articles:***	0.467 -	0.910 -	0.760 -	0.000 -	0.760 -

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
FY 2024 Plans: - Complete test and evaluation activities for TEAMS II (Independent Mast) Capability. - Continue test and evaluation activities for Optical Capability. - Initiate test and evaluation of waveforms, licenses, and antennas that enhance fielded system's ability to evade adversarial detection and jamming. ***FY 2025 Base Plans:*** - Complete test and evaluation activities for Optical Capability. - Continue test and evaluation of waveforms, licenses, and antennas that enhance fielded system's ability to evade adversarial detection and jamming. - Provide test and evaluation support for THC2 ECPs. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease from FY 2024 to FY 2025 reflects completion of environmental test and evaluation activities for Optical Capability.					
Title: TEEE: Test & Evaluation ***Articles:*** ***Description:*** Equip the MCTSSA CJADC2 Battle Lab with equipment required to meet experimentation needs in support of FD2030 and CJADC2 initiatives. ***FY 2024 Plans:*** N/A ***FY 2025 Base Plans:*** -Procure equipment required for prototype development for C5I systems to inform capabilities for the Stand In Force -Provide support for technology scouting, prototype development, and evaluation support for CJADC2. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:***	0.000 -	0.000 -	0.500 -	0.000 -	0.500 -

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Increase from FY 2024 to FY 2025 reflect initiation of MCTSSA CJADC2 test and evaluation support.					
Accomplishments/Planned Programs Subtotals	17.352	47.985	35.173	0.000	35.173

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• PMC/4633-1: *TCM*	296.105	357.713	127.055	-	127.055	134.393	115.593	117.713	120.119	Continuing	Continuing
• PMC/4631-1: *NOTM*	36.633	61.669	40.687	-	40.687	33.233	18.350	18.349	19.281	Continuing	Continuing
• PMC/4633-2: *WSATCOM (formerly VSAT)*	16.284	88.662	103.341	-	103.341	95.480	17.308	18.612	21.251	Continuing	Continuing
• PMC/4633-4: *TWTS*	173.121	57.454	3.551	-	3.551	3.626	3.700	3.773	3.852	Continuing	Continuing
• PMC/4620-1: *Test, Evaluation & Engineer Environment (TEEE)*	0.954	0.957	0.937	-	0.937	0.956	0.975	0.996	1.016	0.000	14.669

Remarks

D. Acquisition Strategy

Tactical Communications Modernization (TCM): TCM will maximize the use of non-developmental radio solutions to meet the next generation of Marine Corps tactical radio requirements. The Multi Band Radio II (MBR II) Mobile User Objective System (MUOS) testing at contracted government test labs to include environmental, shock, electromagnetic compatibility, and interoperability testing until full capability is completed. The Multi Channel Radios (MCR) Family of Systems (FoS) is an evolutionary program that will field non-developmental software defined radios (SDR) to meet the National Security Agency's (NSA) Communications Security Modernization. Multi-Channel Radio Family of Systems, consists of the Multi Channel Hand Held (MCHH) and Multi-Channel Man-Pack (MCMP) systems. TCM continues to contribute to inter-service waveform development in support of NSA objectives.

Networking on the Move (NOTM): NOTM will use an evolutionary acquisition strategy that leverages Commercial-Off-The-Shelf (COTS) and Government-Off-The-Shelf (GOTS) technology to procure, sustain, and meet emerging requirements. The design of the system provides for internal growth capability through an open system architecture enabling technology refresh to extend the system's life, maintain interoperability, Information Assurance (IA) compliance, and reduce costs due to Diminishing Manufacturing Sources and Material Shortages (DMSMS). It is envisioned that technology refresh will occur on the NOTM hardware and software periodically due to component obsolescence, user-driven requests for improvements, IA compliance, and mission-related requirements. Refresh will include investments to incorporate evolving capabilities to ensure compatibility with other systems, create lighter and more efficient equipment that is platform agnostic, and keep pace with evolving software requirements. End-of-life equipment refresh is expected throughout the program's life cycle and may be managed through kit purchases, replacement through Engineering Change Proposals (ECPs), or as replacement parts as equipment is repaired.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

Wideband Satellite Communications (WSATCOM)(formerly VSAT): The VSAT Family of Systems (FoS) was fielded over 10 years and as a result, many subcomponents have reached End-of-Life/End-of-Sale (EoL/EoS). The WSATCOM acquisition strategy leverages Commercial-Off-The-Shelf (COTS) technology to keep the systems relevant and capable. Program will execute the MCWS-L/H efforts using the traditional acquisition framework. PM CS will procure Non-Developmental Item (NDI) technology. Market research and industry responses indicated that MCWS-L/H requirements can be met through integration of NDI. Specific areas of focus include a reduction of Size, Weight, and Power from the legacy VSAT FoS, as well as open architecture features to support future upgrades such as modem replacements and security enhancements. MCWS L/H is designated as an ACAT-IVT, with entrance into the acquisition framework at post MS B. Milestone Decision Authority (MDA) is delegated to the Portfolio Manager (PfM) Command Element Systems (CES). The acquisition for MCWS-L/H will be sought through full and open competition. The program office plans to award an Indefinite Delivery/Indefinite Quantity (IDIQ) for test assets and production quantities. The first ordering period will be for MCWS-L and MCWS-H test asset development and testing, and follow-on ordering periods will be for MCWS-L and MCWS-H production quantities.

Secure Mobile Anti-Jam Reliable Tactical-Terminal (SMART-T): SMART-T is an Army led, ACAT II program. The Marine Corps SMART-T has fielded the full Authorized Acquisition Objective (AAO) of 42 terminals and 35 AN/PSQ-17 Network Planning tools and completed the Advanced Extremely High Frequency (AEHF) upgrades. The SMART-T Project Office will procure non developmental items utilizing an Army contract to mitigate obsolescence, Diminishing Manufacturing Sources and Material Shortages (DMSMS), and components whose warranty has expired. This strategy will continue until a NEXGEN AEHF solution is identified.

Terrestrial Wideband Transmission Systems (TWTS): TWTS is a portfolio that provides the Fleet Marine Force with the capabilities of secure Beyond Line of Sight (BLOS) and Line of Sight (LOS) terrestrial digital data transmission. The BLOS capability will be provided by the Next Generation Troposcatter (NGT) which is currently in the Engineering and Manufacturing Development Phase. NGT procurements for testing and fielding are being made through the Marine Corps FFP contract awarded in Q1 FY 2020. The LOS capability is being provided by the Line-of-Sight Radio System Family of Systems (LRS FoS) which is being purchased through an Army contract and began fielding in FY 2022. NGT and LRS are both Leading Readiness Indicators for the Marine Corps Force Design Effort supporting the conduct of Command and Control in a degraded environment. The LOS capability also includes an optical communications system with test assets being procured through an Other Transaction Authority (OTA) agreement and production systems being procured through a traditional contract.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TCM JENM Development	SS/CPFF	ARL : Aberdeen, MD	6.822	1.207	Feb 2023	1.012	Feb 2024	0.901	Feb 2025	-		0.901	Continuing	Continuing	Continuing
TCM FoS Development	Various	MCSC : Quantico, VA	0.254	0.845	Jun 2023	0.855	Jun 2024	0.000		-		0.000	Continuing	Continuing	Continuing
TCM SPEED Development	TBD	Crane, Indiana : NSWC Crane	0.000	0.000		3.132	Mar 2024	2.000	Mar 2025	-		2.000	Continuing	Continuing	Continuing
TCM Test Assets	C/IDIQ	PRP : San Diego, CA	4.653	0.000		0.456	Mar 2024	0.000		-		0.000	0.000	5.109	-
TCM MBR II PIII	C/FFP	MCSC : Quantico, VA	0.000	3.166	Sep 2023	3.806	Nov 2023	4.959	Nov 2024	-		4.959	Continuing	Continuing	Continuing
TCM Ground Link-16	MIPR	NIWC-PAC : San Diego, CA	0.000	0.000		0.275	May 2024	0.235	May 2025	-		0.235	Continuing	Continuing	Continuing
TCM MBR II Replacement	TBD	MCSC : Quantico, VA	0.000	0.000		12.600	Mar 2024	8.000	Mar 2025	-		8.000	0.000	20.600	-
TCM Waveform Modernization	TBD	MCSC : Quantico	0.000	0.000		0.000		6.000	Mar 2025	-		6.000	0.000	6.000	-
TCM ANPA	TBD	TBD : TBD	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
NOTM Development	WR	NIWC-PAC : San Diego, CA	5.293	0.295	Oct 2022	0.228	Oct 2023	0.167	Oct 2024	-		0.167	Continuing	Continuing	Continuing
NOTM Development/ Enhancement	C/CPFF	NIWC-PAC : San Diego, CA	0.360	0.615	May 2023	0.000		0.000		-		0.000	0.000	0.975	-
NOTM Development	C/CPFF	NIWC-LANT : Charleston, SC	11.632	0.935	Dec 2022	0.500	Dec 2023	0.485	Dec 2024	-		0.485	0.000	13.552	-
NOTM COSMOS	Various	NIWC-PAC : San Diego, CA	0.000	1.125	Oct 2022	8.903	Oct 2023	1.390	Oct 2024	-		1.390	0.000	11.418	-
TWTS Development	C/FFP	MCSC : Quantico, VA	0.942	0.300	Jan 2023	0.398	Jan 2024	0.450	Jan 2025	-		0.450	0.000	2.090	-
WSATCOM Secure/Assure SATCOM	TBD	Various : Various	0.000	0.000		2.500	Aug 2024	2.500	Aug 2025	-		2.500	0.000	5.000	-
Prior Years Cumulative Funding	Various	Various : Various	28.925	0.000		0.000		0.000		-		0.000	0.000	28.925	-
		Subtotal	58.881	8.488		34.665		27.087		-		27.087	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Product Development overall Decrease is largely attributed to COSMOS- details are held at a higher classification level.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TCM Engineering Support Gov	MIPR	NIWC-LANT : Charleston, SC	0.000	0.386	Nov 2022	0.490	Nov 2023	0.713	Nov 2024	-		0.713	0.000	1.589	-
TCM Engineering Support CTR	C/FFP	NIWC-LANT : Charleston, SC	0.000	0.206	Jul 2023	0.364	Jul 2024	0.381	Jul 2025	-		0.381	0.000	0.951	-
TCM Engineering Support	Various	MCSC : Quantico, VA	3.801	1.430	May 2023	2.866	May 2024	1.350	May 2025	-		1.350	Continuing	Continuing	Continuing
WSATCOM/VSAT Engineering Support	WR	NIWC-PAC : San Diego, CA	1.576	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
WSATCOM/VSAT Engineering Support	WR	NIWC-LANT : Charleston, SC	0.029	0.000		0.000		0.000		-		0.000	0.000	0.029	-
WSATCOM Engineering Support	C/FFP	MCSC : Quantico, VA	0.579	0.725	May 2023	0.790	May 2024	0.213	Sep 2025	-		0.213	0.000	2.307	-
SMART-T Engineering Support 2	WR	NIWC-PAC : San Diego, CA	0.021	0.000		0.000		0.000		-		0.000	0.000	0.021	-
NOTM COSMOS	Various	NIWC-PAC : San Diego, CA	0.000	0.699	Nov 2022	1.189	Nov 2023	0.860	Nov 2024	-		0.860	0.000	2.748	-
Prior Years Cumulative Funding	Various	Various : Various	7.239	0.000		0.000		0.000		-		0.000	0.000	7.239	-
		Subtotal	13.245	3.446		5.699		3.517		-		3.517	Continuing	Continuing	N/A

Remarks

Support overall decrease is largely attributed to WSATCOM Engineering and Program Support transition to sustainment funding and reduced engineering support required for TCM.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation (OT&E)	Various	Various : Various	8.607	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	MIPR	DTIC : Fort Belvoir, VA	2.433	0.716	Jan 2023	0.730	Jan 2024	0.000		-		0.000	0.000	3.879	-
Developmental Test & Evaluation (DT&E)	WR	NIWC-PAC : San Diego, CA	2.671	1.464	Oct 2022	0.400	Oct 2023	0.500	Oct 2024	-		0.500	0.000	5.035	-
Developmental Test & Evaluation (DT&E)	C/FFP	MCSC : Quantico	1.050	0.467	Feb 2023	0.910	Jan 2024	0.760	Jan 2025	-		0.760	0.000	3.187	-
Operational Test & Evaluation (OT&E)	C/FFP	MCSC : Quantico, VA	0.000	0.000		1.200	Aug 2024	1.048	Aug 2025	-		1.048	0.000	2.248	-
Developmental Test & Evaluation (DT&E)	WR	NIWC PAC : San Diego	0.000	1.897	Oct 2022	2.783	Oct 2023	0.300	Oct 2024	-		0.300	0.000	4.980	-
Developmental Test & Evaluation (DT&E)	Various	MCTSSA : Camp Pendleton, CA	0.000	0.000		0.000		0.500	Jan 2025	-		0.500	0.000	0.500	-
		Subtotal	14.761	4.544		6.023		3.108		-		3.108	Continuing	Continuing	N/A

Remarks

Test and Evaluation overall decrease is largely attributed to COSMOS- details are held at a higher classification level.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TCM FFRDC Engineering Support	FFRDC	US Army, MITRE : Stafford, VA	3.824	0.737	Feb 2023	0.752	Jan 2024	0.805	Jan 2025	-		0.805	Continuing	Continuing	Continuing
TCM Naval Research Lab	C/FFP	Naval Research Lab : Washington DC	0.000	0.000		0.200	Nov 2024	0.000		-		0.000	0.000	0.200	-
WSATCOM Engineering Support	FFRDC	US Army, MITRE : Stafford, VA	6.475	0.137	Feb 2023	0.646	Jan 2024	0.656	Jan 2025	-		0.656	Continuing	Continuing	Continuing
SMART-T Engineering Support	FFRDC	US Army, MITRE : Stafford, VA	0.508	0.000		0.000		0.000		-		0.000	0.000	0.508	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Years Cumulative Funding	FFRDC	US Army, MITRE : Stafford, VA	9.416	0.000		0.000		0.000		-		0.000	0.000	9.416	-
		Subtotal	20.223	0.874		1.598		1.461		-		1.461	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	107.110	17.352		47.985		35.173		-		35.173	Continuing	Continuing	N/A

Remarks

Overall decrease is largely attributed to COSMOS- details are held at a higher classification level.

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

EMC2 PB-25

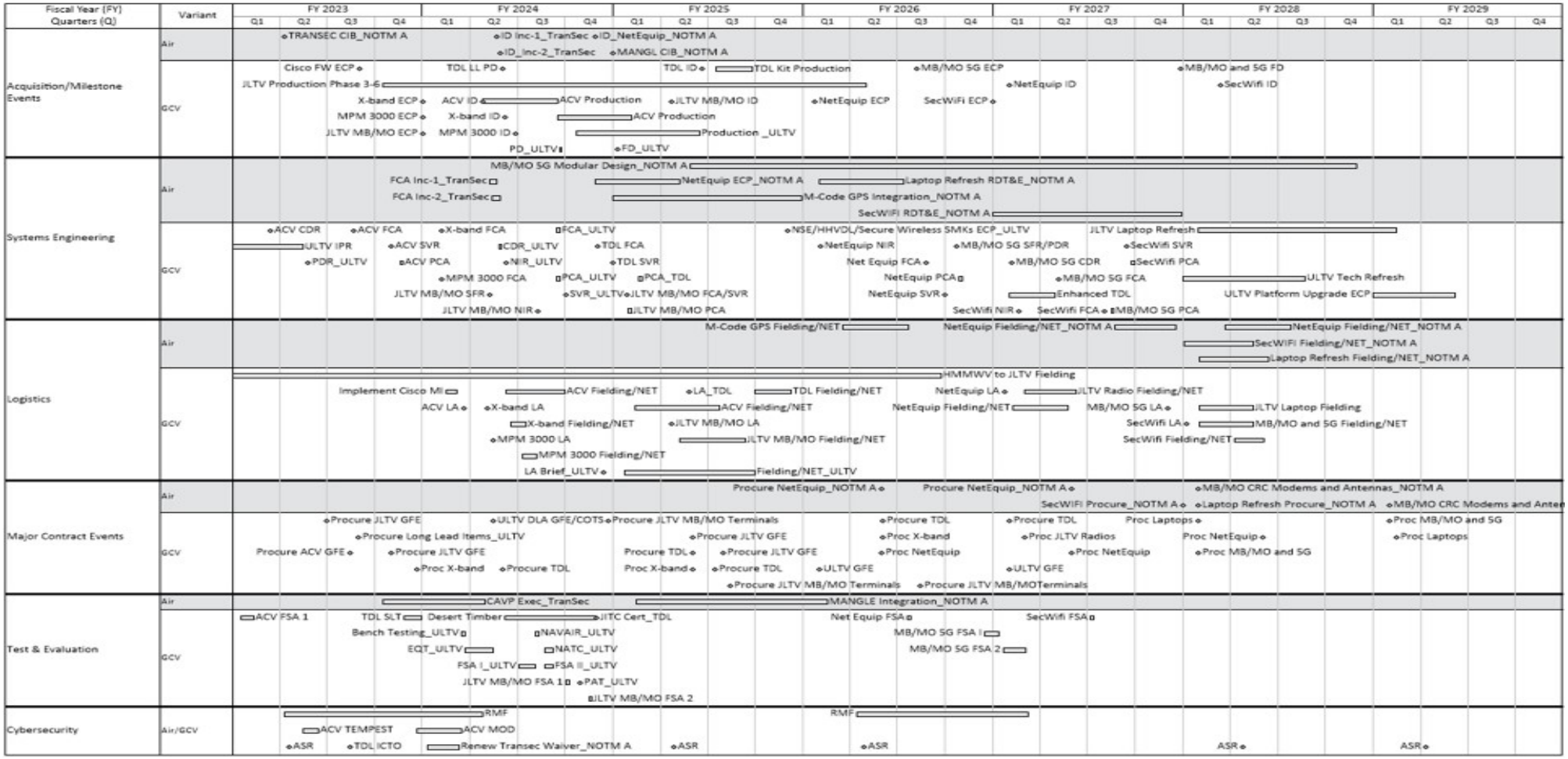


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

TCM-MCMP

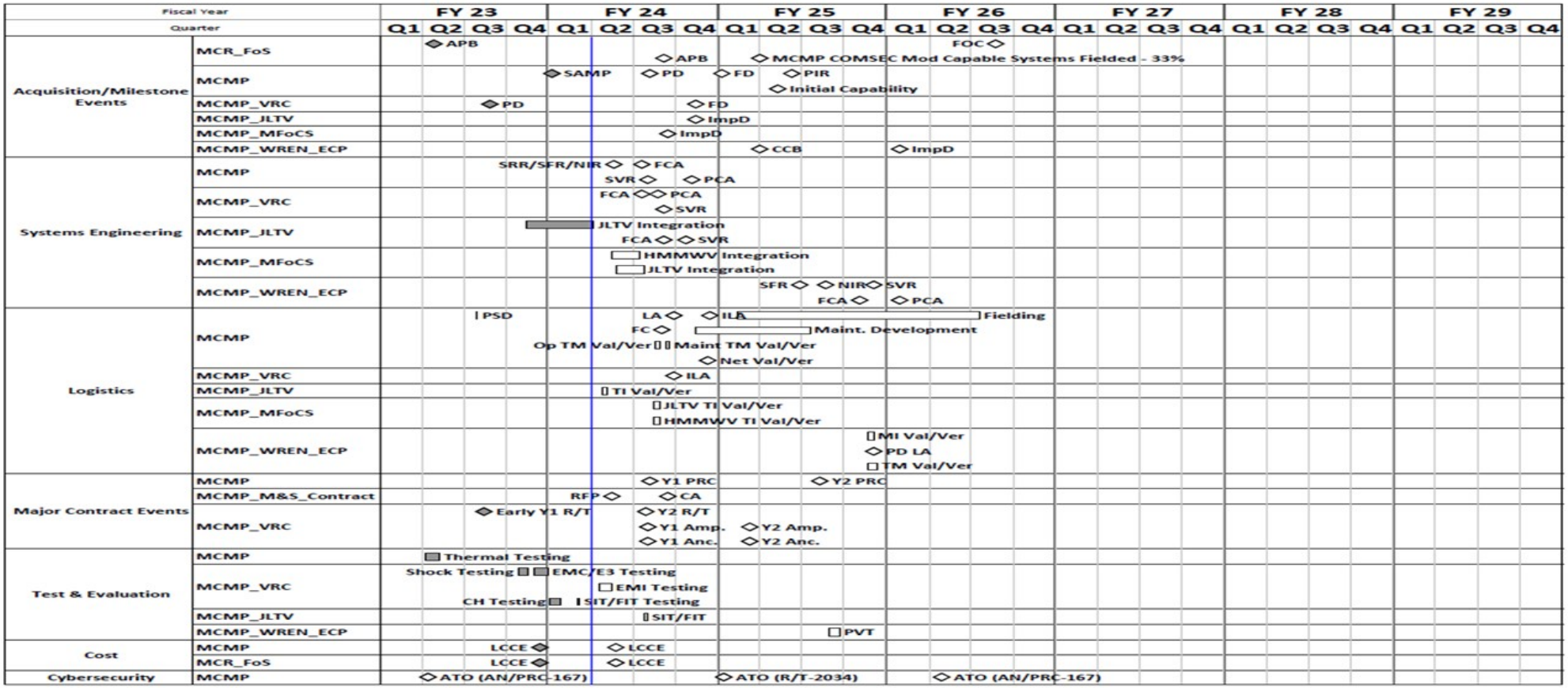


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

TCM-MBR II

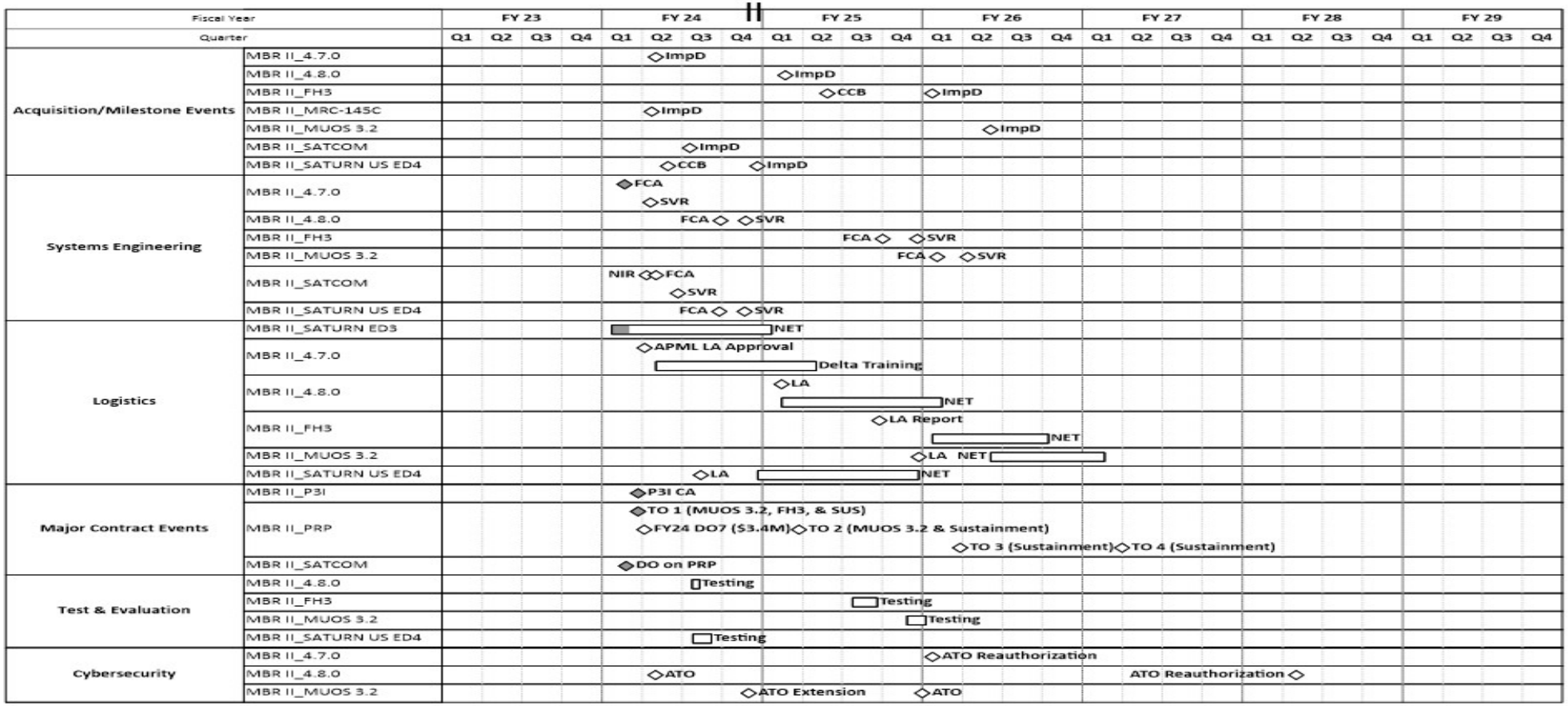


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

TCM-MCHH

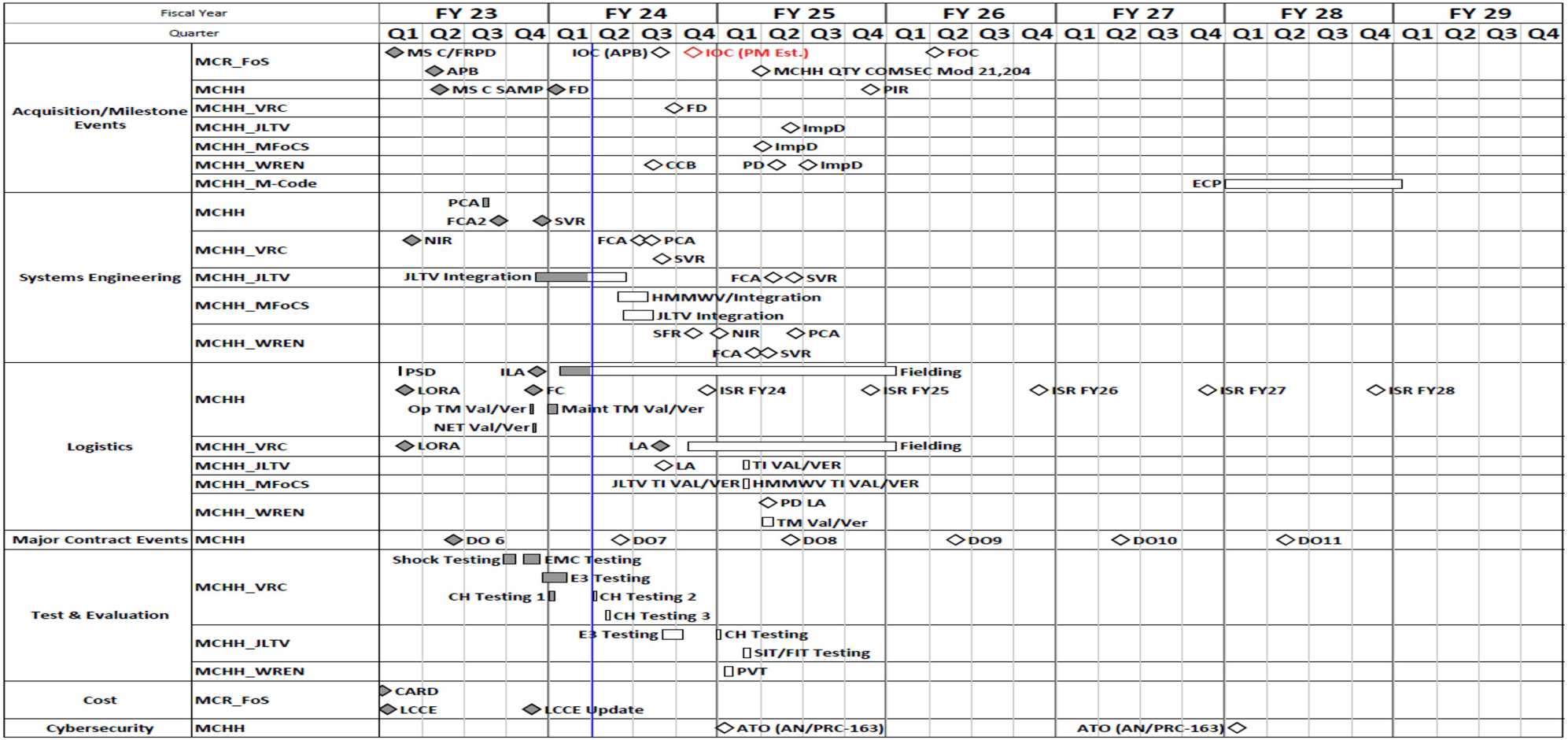


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

TCM – HFR II

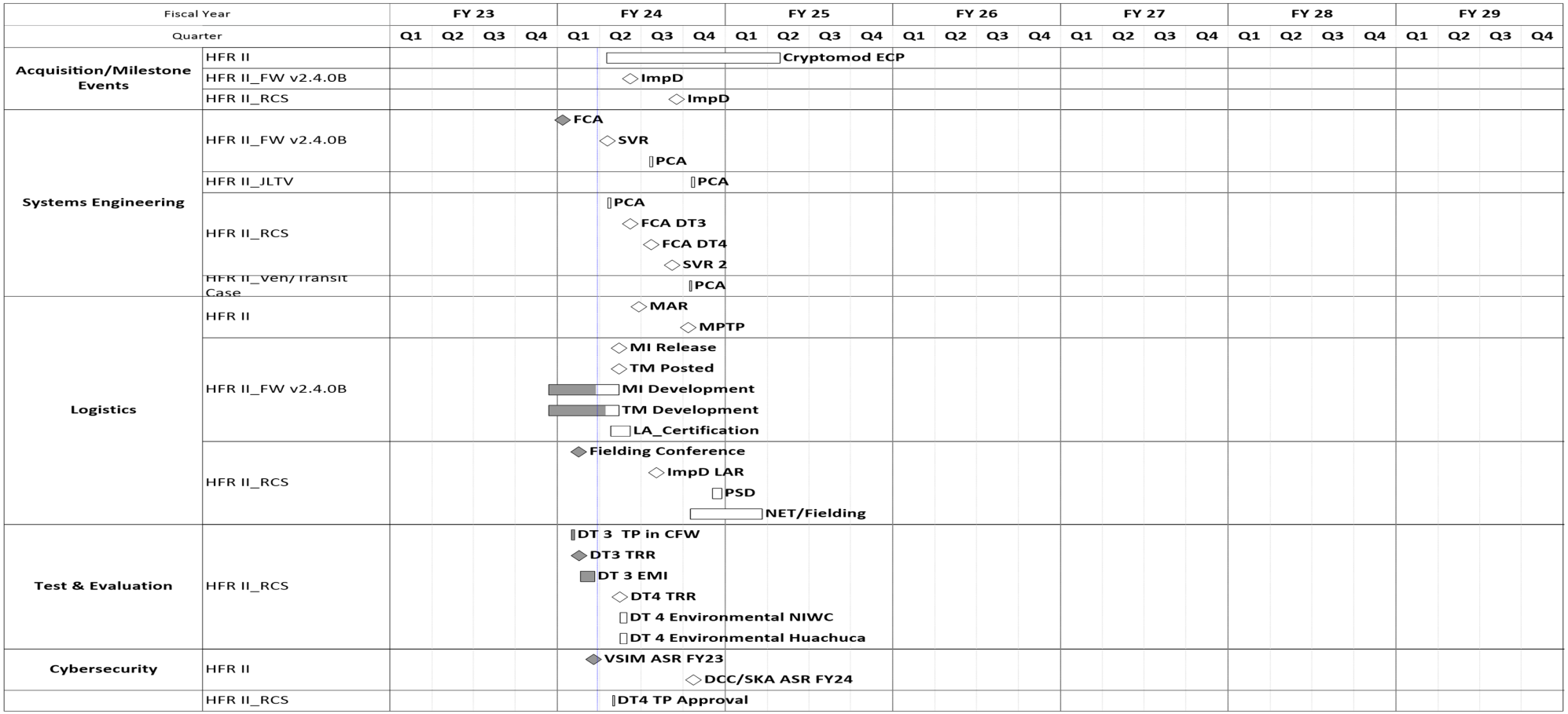


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

TWTS FY23-29 Schedule

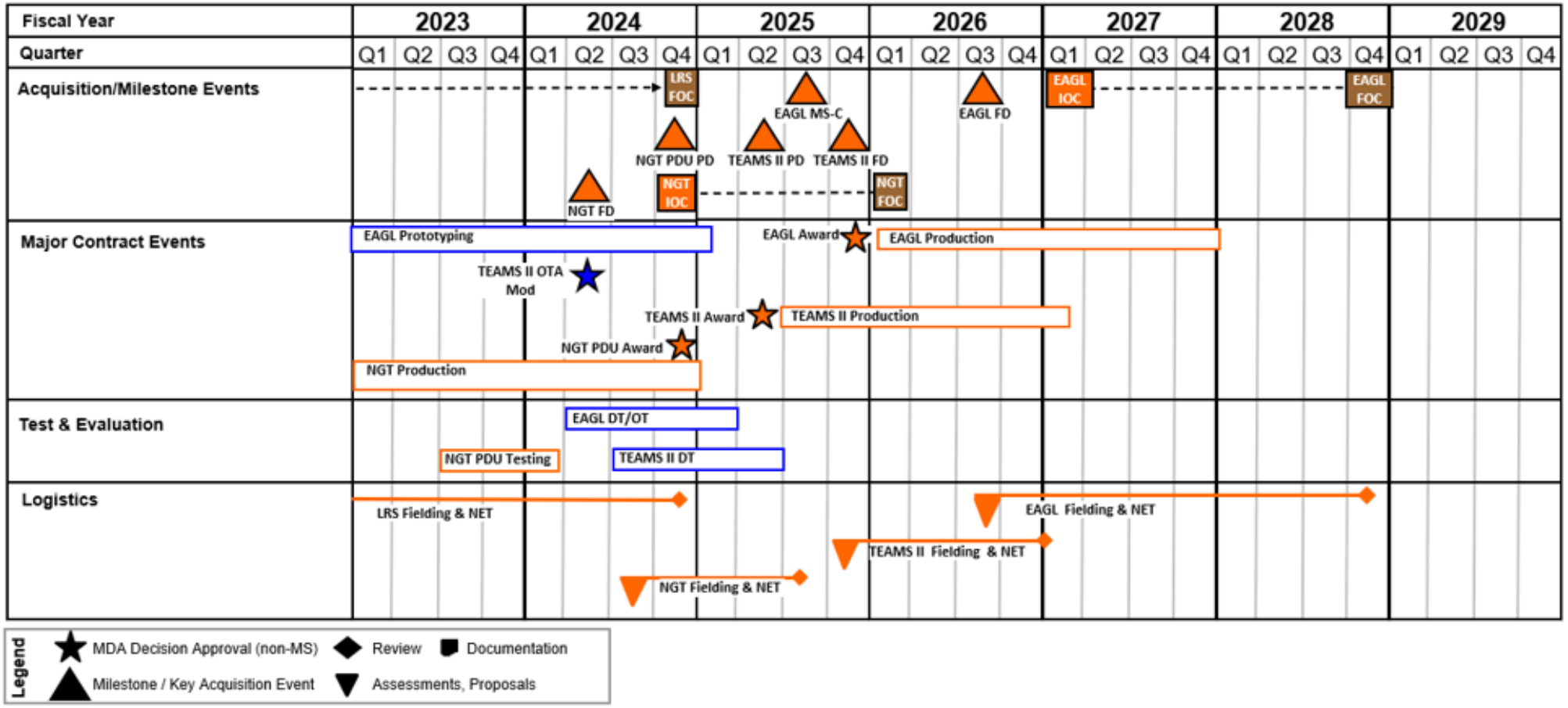


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

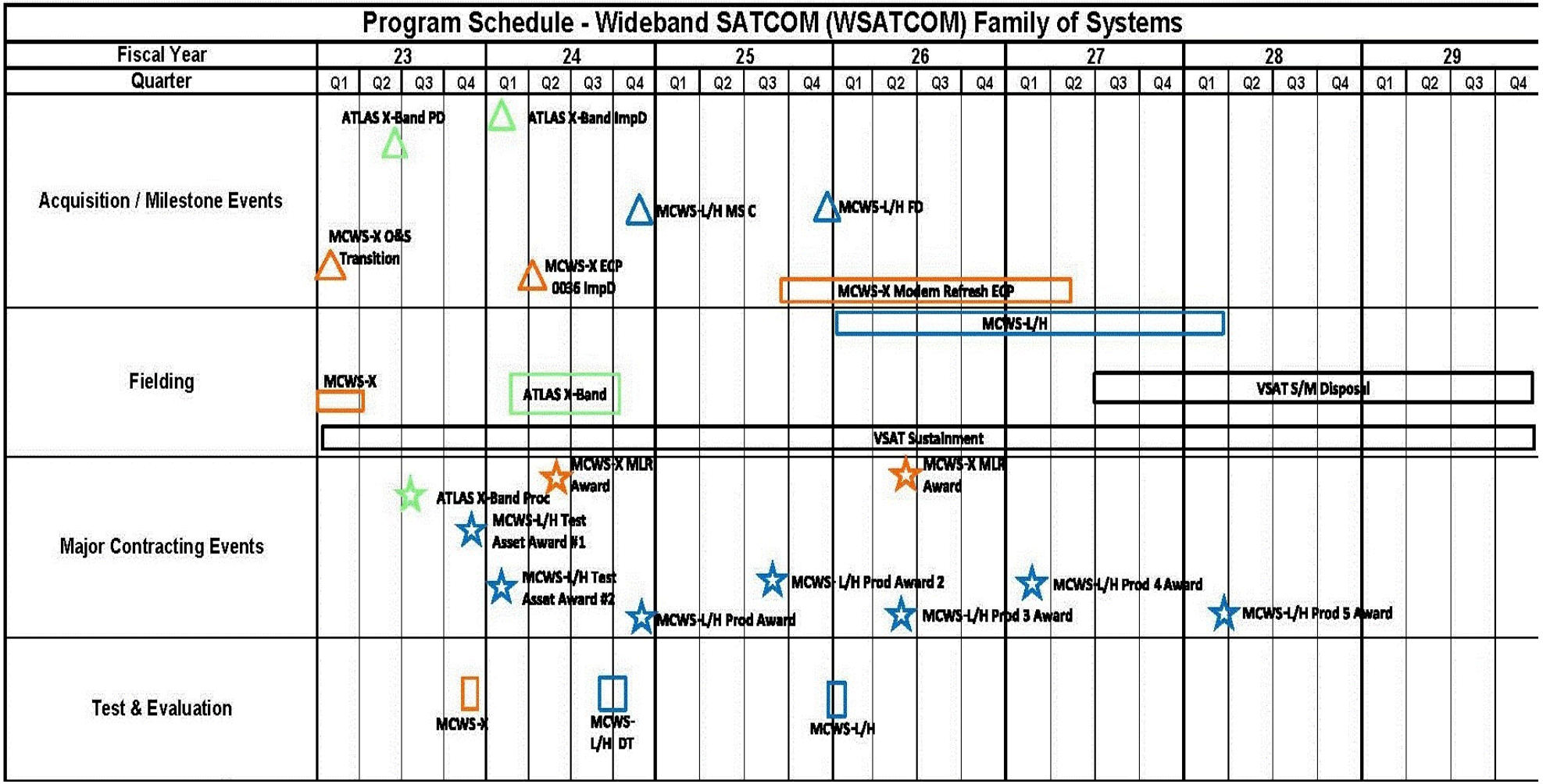


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2275				
TCM MCMP: MCMP PRC Fielding and NET	1	2025	2	2026
TCM MCMP: MCMP VRC Fielding and NET	1	2025	2	2026
TCM MCMP: MCMP PRC FD	4	2024	4	2024
TCM MCMP: MCMP VRC FD	4	2024	4	2024
TCM MCMP: MCMP PRC PD	2	2024	2	2024
TCM MCMP: MCMP PRC DO 1	3	2024	3	2024
TCM MCMP: MCMP IOC	1	2025	1	2025
TCM MCMP: MCMP FOC	3	2026	3	2026
TCM HFR II: HFR II Remotes Fielding and NET	4	2024	4	2025
TCM HFR II: HFR II Fielding and NET	1	2023	4	2024
TCM HFR II: HFR II Final Operating Capability (FOC)	2	2025	2	2025
TCM HFR II: HFR II DO #5	3	2023	3	2023
TCM MCHH: MCHH PRC FD	1	2024	1	2024
TCM MCHH: MCHH PRC/VRC IOC	1	2024	1	2024
TCM MCHH: MCHH VRC Procurement Decision (PD)	1	2024	1	2024
TCM MCHH: MCHH VRC DO #6	2	2023	2	2023
TCM MCHH: MCHH VRC FD	1	2024	1	2024
TCM MCHH: MCHH VRC DO #7	2	2024	2	2024
TCM SPEED: SPEED Software Development	1	2025	2	2026
TCM SPEED: SPEED Developmental Test	2	2024	2	2024
TCM SPEED: SPEED Developmental Test 2	3	2024	3	2024

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
TCM SPEED: SPEED Operational Test	4	2024	1	2025
TCM SPEED: SPEED UI/UX User Feedback	1	2024	4	2024
NOTM: NOTM ACV-C Contract Award	3	2023	3	2023
NOTM: NOTM: NOTM ACV-C Fielding	2	2024	3	2025
NOTM: NOTM: X Band Contract Procurement	2	2025	2	2025
NOTM: NOTM: NOTM-A M-Code GPS Integration Testing	1	2025	4	2025
TWTS: TWTS Optical Development Testing	2	2024	1	2025
TWTS: TWTS Optical Operational Testing	3	2024	1	2025
TWTS: TWTS NGT PDU Procurement Decision	4	2024	4	2024
TWTS: TWTS NGT PDU Award	4	2024	4	2024
TWTS: TWTS TEAMS II Procurement Decision	2	2025	2	2025
TWTS: TWTS TEAMS II Contract Award	2	2025	2	2025
TWTS: TWTS Optical Milestone C	3	2025	3	2025
TWTS: TWTS TEAMS II Fielding Decision	4	2025	4	2025
WSATCOM: WSATCOM MCWS-L/H Test Asset Award DO #1	4	2023	4	2023
WSATCOM: WSATCOM MCWS-L/H Test Asset Award DO #2	1	2024	1	2024
WSATCOM: WSATCOM MCWS-Light Test Asset Developmental Test	3	2024	3	2024
WSATCOM: WSATCOM MCWS-Heavy Test Asset Developmental Test	3	2024	4	2024
WSATCOM: WSATCOM MCWS-Light/Heavy Production Award #1	4	2024	4	2024
WSATCOM: WSATCOM MCWS-Light Fielding Decision	4	2025	4	2025
WSATCOM: WSATCOM MCWS-Heavy Fielding Decision	4	2025	4	2025
WSATCOM: WSATCOM MCWS-X MLR Award	2	2024	2	2024
TCM Ground Link-16: Ground Link-16 Fielding and NET	2	2025	2	2026
TCM Ground Link-16: Ground Link-16 Procurement Decision	3	2024	3	2024
TCM Ground Link-16: Ground Link-16 Fielding Decision	1	2025	1	2025

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2275 / *Marine Corps Tactical Radio Systems*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
TCM MBR II: MBR II SATURN ED3 Implementation Decision (ImpD)	4	2023	4	2023
TCM MBR II: MBR II FH3 Implementation Decision	1	2026	1	2026
TCM MBR II: MBR II PRP DO1	1	2023	1	2023
TCM MBR II: MBR II PRP DO2	2	2023	2	2023
TCM MBR II: MBR II PRP DO3	2	2023	2	2023
TCM MBR II: MBR II PRP DO4	2	2023	2	2023
TCM MBR II: MBR II PRP DO5	4	2023	4	2023
TCM MBR II: MBR II P3I Contract Award (CA)	1	2023	1	2023
TCM MBR II: MBR II 4.7.0 SCIP Testing	3	2023	4	2024
TCM MBR II: MBR II SATCOM Implementation Decision	2	2024	2	2024
TCM MBR II: MBR II 4.7.0 SCIP Implementation Decision	1	2024	1	2024
TCM MBR II: MBR II 4.8.0 Implementation Decision	4	2024	4	2024
TCM MBR II: MBR II MUOS 3.2 Implementation Decision	3	2026	3	2026
TCM MBR II: MBR II 4.8.0 Testing	1	2024	2	2024
TCM MBR II: MBR II FH3 Testing	3	2025	3	2025
TCM MBR II: MBR II MUOS 3.2 Testing	1	2026	1	2026
TCM MBR II: MBR II SATURN US ED4 Testing	2	2025	3	2025
TCM MBR II: Schedule Detail	1	2023	1	2029
TCM MBR II: TEEE: Prototype system integration and experimentation support	1	2024	4	2029

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*				Project (Number/Name) 2276 / *Comms Switching and Control Sys*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
2276: *Comms Switching and Control Sys*	58.533	2.816	1.008	2.955	-	2.955	2.224	1.703	1.737	1.773	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Combat Data Network (CDN): The CDN provides a modular, integrated and interoperable suite of deployable network infrastructure equipment that facilitates network, routing, switching and hosting capability across all tactical echelons of the Marine Air-Ground Task Force (MAGTF). CDN enables Non-secure Internet Protocol Router Network (NIPRNet), Secret Internet Protocol Router Network (SIPRNet) and coalition network enclaves and serves as the hardware component responsible for hosting the Marine Corp's tactical cloud (Common Hosting Environment (CHE)). The CHE tactical cloud hosts warfighting applications and services that support Command and Control (C2) at the tactical edge. The CDN bridges the gap between current capabilities and the future of the tactical data communications backbone, Operational Command Post (OCP). OCP introduces several critical new capabilities to support the force and improve command and control and situational awareness in a degraded communications environment. These materiel solutions will further enhance current cybersecurity resiliency, provide greater kill chain and kill web facilitation and enhancements, expand tactical connections, and provide critical user interface upgrades to increase the speed of information and command post efficiency. New capabilities include the following items: wireless and secure wireless capabilities, Cross Domain Solutions, enhanced tactical connections (via Radio over Internet Protocol (RoIP) and cellular), upgraded audiovisual equipment, tactical chat enhancements, and ability to host Artificial Intelligence and Machine Learning (AI/ML) enabled applications.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Title: CDN/OCP: Product Development	2.042	0.095	2.014	0.000	2.014
Articles:	-	-	-	-	-
Description: CDN/OCP Product Development: Funds support sustainment and modernization of existing CDN network infrastructure and technology insertion of new capabilities under OCP.					
FY 2024 Plans: - Continued development of required hardware upgrades to support cloud-based technologies and mitigate obsolescence and cybersecurity risks, in addition to activities associated with OCP enhancements. Development efforts will focus on integration and testing of components selected for technology refresh of CDN Routers.					
FY 2025 Base Plans: - Continue development of required hardware upgrades to support cloud-based technologies and mitigate obsolescence and cybersecurity risks, in addition to activities associated with OCP enhancements. Development					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2276 / *Comms Switching and Control Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
efforts will focus on integration and testing of components selected for technology refresh of CDN Routers and incorporation of new capabilities of wireless/secure wireless. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase of $1.919M from FY 2024 to FY 2025 reflects efforts associated with wireless/secure wireless and Commercial Solutions for Classified (CSfC) and legacy technology modernization.					
Title: CDN/OCP: Developmental Test and Evaluation	0.774	0.913	0.941	0.000	0.941
Articles:	-	-	-	-	-
Description: CDN/OCP Developmental Test and Evaluation: Funds testing and evaluation support for sustainment and modernization of existing CDN network infrastructure and technology insertion of new capabilities under OCP. ***FY 2024 Plans:*** - Continue to support test and evaluation of the CDN system, to include upcoming technology refreshes, upgrades to the hosting environment, joint interoperability testing and demonstration, and new capabilities in support of transitioning to OCP. ***FY 2025 Base Plans:*** - Continue to support test and evaluation of the CDN system, to include upcoming technology refreshes, upgrades to the hosting environment, joint interoperability testing and demonstration, and new capabilities in support of transitioning to OCP. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** No significant change in funding from FY24 to FY25.					
Accomplishments/Planned Programs Subtotals	2.816	1.008	2.955	0.000	2.955

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2276 / *Comms Switching and Control Sys*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• PMC/4634: *CDN*	33.021	46.276	39.390	-	39.390	39.660	40.310	38.624	39.352	Continuing	Continuing

Remarks

D. Acquisition Strategy

CDN maximizes the use of commercial and government off the shelf technologies to maintain and modernize the core deployable tactical network capability for the Marine Corps. CDN leverages a variety of external contracts and government warfare centers to upgrade fielded hardware and software to mitigate obsolescence and cybersecurity risks, in addition to maintaining interoperability with Joint and Coalition forces and compatibility with other critical Marine Corps command and control capabilities. Research, development, test, and evaluation efforts will focus on integration and testing of next generation hardware components, software enhancements to the Common Hosting Environment (CHE), and technology insertion of new capabilities supporting the transition to Operational Command Post (OCP). OCP will incorporate the CDN as its tactical data network and provide critical technology enhancements and advanced capabilities in order to enable Force Design 2030 objectives at the tactical edge. New capabilities include the following items: wireless and secure wireless capabilities, Cross Domain Solutions, enhanced tactical connections (via Radio over Internet Protocol (RoIP) and cellular), upgraded audiovisual equipment, tactical chat enhancements, and ability to host Artificial Intelligence and Machine Learning (AI/ML) enabled applications.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*	Project (Number/Name) 2276 / *Comms Switching and Control Sys*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CDN Development Efforts	MIPR	NIWC-LANT : Charleston, SC	7.602	1.592	Feb 2023	0.095	Feb 2024	2.014	Mar 2025	-		2.014	Continuing	Continuing	Continuing
CDN EFFORTS	C/FFP	MCTSSA : Camp Pendleton, CA	0.000	0.000		0.000	May 2024	0.000		-		0.000	0.000	0.000	-
Prior Year Cumulative Funding	Various	Various : Various	30.590	0.000		0.000		0.000		-		0.000	0.000	30.590	-
Project Overmatch	C/BA	NIWC-LANT : Charleston, SC	0.000	0.450	Aug 2023	0.000		0.000		-		0.000	0.000	0.450	-
		Subtotal	38.192	2.042		0.095		2.014		-		2.014	Continuing	Continuing	N/A

Remarks

Increase from FY 2024 to FY 2025 reflects efforts associated with wireless/secure wireless and Commercial Solutions for Classified (CSfC) and legacy technology modernization efforts.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Cumulative Funding	Various	Various : Various	5.696	0.000		0.000		0.000		-		0.000	0.000	5.696	-
		Subtotal	5.696	0.000		0.000		0.000		-		0.000	0.000	5.696	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	MIPR	NIWC Pacific : San Diego, CA	2.655	0.455	Mar 2023	0.586	Mar 2024	0.607	Apr 2025	-		0.607	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	Various	Various : Various	2.886	0.000		0.000		0.000		-		0.000	0.000	2.886	-
Developmental Test & Evaluation (DT&E)	MIPR	NSWC Indian Head : Indian Head, MA	0.000	0.319	Mar 2023	0.327	Mar 2024	0.334	Mar 2025	-		0.334	0.000	0.980	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2276 / *Comms Switching and Control Sys*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	5.541	0.774		0.913		0.941		-		0.941	Continuing	Continuing	N/A

Remarks

No significant change.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CDN	FFRDC	MITRE : Stafford, VA	3.572	0.000	Dec 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Prior Year Cummulative Funding	FFRDC	MITRE : Stafford, VA	5.532	0.000		0.000		0.000		-		0.000	0.000	5.532	-
		Subtotal	9.104	0.000		0.000		0.000		-		0.000	Continuing	Continuing	N/A

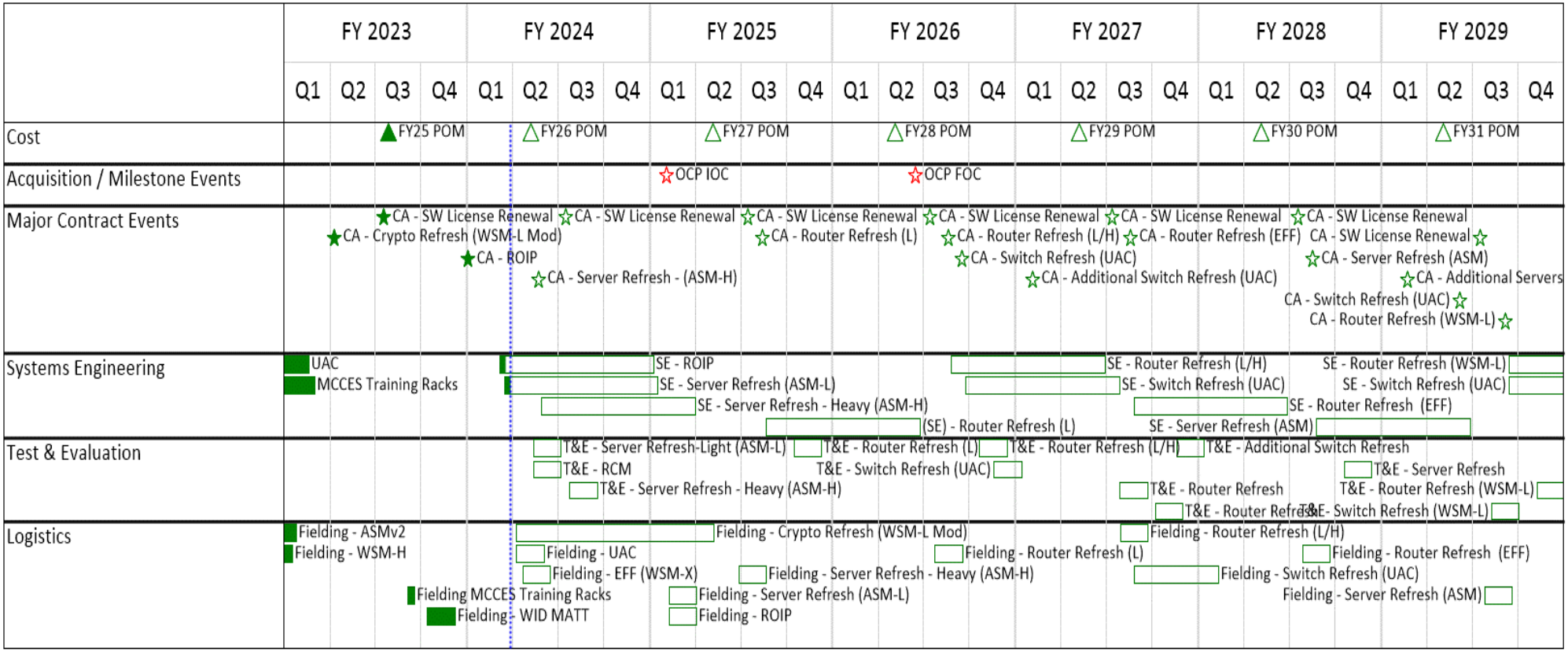
	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	58.533	2.816		1.008		2.955		-		2.955	Continuing	Continuing	N/A

Remarks

Overall increase from FY 2024 to FY 2025 primarily due to wireless/secure wireless and Commercial Solutions for Classified (CSfC) and legacy technology modernization efforts.

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2276 / *Comms Switching and Control Sys*

CDN



CDN IMS_Master Schedule Q2FY24.mpp

Snapshot Date: 12/28/2023

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2276 / *Comms Switching and Control Sys*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2276				
OCP IOC	1	2025	1	2025
OCP FOC	2	2026	2	2026
Contract Award- Router Refresh Light	3	2025	3	2025
Contract Award - Software License Renewal	3	2025	3	2025
Contract Award- Router Refresh Light/Heavy	3	2026	3	2026
Contract Award Switch Refresh (UAC)	3	2026	3	2026
Router Refresh Light	2	2025	4	2025
Router Refresh Inc Light/Heavy	2	2026	4	2026
Switch Refresh (UAC)	2	2026	1	2027
Fielding Servers (ASM-L)	1	2025	1	2025
Fielding Router Refresh Light	3	2026	3	2026
Fielding Router Refresh Light/Heavy	3	2027	3	2027
ROIP Fielding	1	2025	1	2025

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*				Project (Number/Name) 2277 / *System Engineering and Integration*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
2277: *System Engineering and Integration*	49.279	4.529	17.846	14.629	-	14.629	9.503	6.359	6.352	6.486	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Systems Engineering and Integration provides funding for engineering, test, and evaluation activity, which ensures that the systems being developed within the Program Element (PE) employ consistent standards for interoperability, and to the maximum extent feasible, use of hardware and software which is uniform and standard across programs.

Expeditionary Energy Office (E2O): The Commandant established the USMC Expeditionary Energy Office (E2O) with the mission to analyze, develop, and direct the Marine Corps' energy strategy in order to optimize expeditionary capabilities across all warfighting functions. E2O's role is to advise the Marine Requirements Oversight Council (MROC) on all energy and resource related requirements, acquisitions, and programmatic decisions. This office, both personnel and funding, directly supports execution of the USMC Expeditionary Energy Strategy and Implementation Plan, and priorities identified in Force Design 2030. The Marine Corps program aligns with the Commandant's Planning Guidance, the National Defense Authorization Act, DoD directives and SECNAV goals. This funding will support the achievement of the Strategy, and the activities of the USMC Expeditionary Energy Concepts process, managed by the E2O.

Joint Interoperability of Tactical Command and Control Systems (JINTACCS) is a Joint Chiefs-of-Staff (JCS)/DoD-mandated program for joint development, implementation, and testing of tactical data links and US Message Text Format (MTF) under the direction of the Defense Information Systems Agency (DISA) and Office of the Secretary of Defense/ Networks and Information Integration (OASD/NII) per the Commander Joint Chiefs of Staff (CJCSI) Instructions 6610.01F and CJCS16241.04 respectively. This effort also covers interoperability analyses, standardization, and testing of tactical message standards such as Link 16, Joint Range Extension Application Protocol (JREAP), and Variable Message Format (VMF) used between the Marine Corps and joint forces. Responsible for the development of Net Centric standards (XML, Web Services) to meet requirements of USMC/DoD/Coalition Net Centric Data Strategies. Efforts in this area include Marine Corps representation in tactical data link and tactical data message joint working groups and configuration control boards and application of the Interoperability Enhancement Process (IEP) across Marine Air Ground Task Force systems and platforms.

Systems Engineering, Integration and Coordination (SEIC) is MCSC Chief Engineer's systems engineering and integration program. SEIC provides the decision support tools and engineering analysis resources needed to assess, identify and resolve Marine Air Ground Task Force (MAGTF) inter-systems' Systems of Systems (SoS) issues and challenges. SEIC supports DC CD&I, DC PP&O, DC A, DC I&L, DC M&RA, HQMC C4, and HQMC INT in the analysis, evaluation, and assessment of MAGTF Systems and SoS requirements. SEIC centralized management of Command, Control, Communications, Computers and Intelligence Surveillance and Reconnaissance (C4ISR) programs allows the implementation of systems engineering certification process in support of milestone decision approval; a requirements and functional analysis process enabling system of systems engineering and an overarching C4ISR systems architecture, and a product realization process to support budget decisions. SEIC engineering conducts functional analyses for emergent system of systems challenges and ensures seamless integration and maximum interoperability of materiel across USMC, Naval, Joint, and DoD programs consistent with the Commandant's Vision and Strategy 2025.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2277 / *System Engineering and Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Expeditionary Energy Office (E2O)	1.951	13.770	10.864	0.000	10.864
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue to support the USMC Expeditionary Energy Strategy and Implementation Plan, as well as the USMC Expeditionary Energy Water and Waste Initial Capabilities Document. - Continue to evaluate technologies for small unit power in order to inform the Acquisition Requirement for power generation. - Continue to support R&D efforts that explore and quantify engineering characteristics that promote battlefield electrification in support of Presidential Climate Change directives. - Initiate alternative energy technologies that will replace legacy systems per Force Design (FD) 2030. - Initiate an aviation ground support equipment electrification testing and evaluation effort to support DoD energy and climate objectives. - Initiate alternate energy efforts to include man-portable hydrogen fuel cell (HFC) generator prototyping, water production via HFC exhaust capture, HFC battery electric vehicle direct current (DC) fast charging system for tactical and contingence operations, and compressed hydrogen storage aviation testing and airworthiness standards development. - Initiate efforts exploring highly efficient, high power, and lightweight range extenders for battery dominant hybrid electric vehicles and modular nuclear reactors. - Initiate testing and evaluation of advanced fuel filter technology that would drastically reduce weight and space, compared to current versions, and will potentially replace fuel filters throughout the Marine Corps. - Initial the research and development for the replacement of the Helicopter Expeditionary Refueling System (HERS), Hose Reel System (HRS), Ground Expeditionary Refueling System (GERS), and the Beach Receiving Unit (BRU). Currently systems contain legacy equipment that greatly limits capability, throughput, and storage. - Initiate testing and evaluation of Artic FARP capabilities. The Marine Corps is currently not equipment to perform bulk fuel operations in severe cold weather temperatures. This would allow FARP operations in <30 degrees.					
FY 2025 Base Plans: -Continue to support the USMC Expeditionary Energy Strategy and Implementation Plan. -Continue to support the Family of Expeditionary Fuels COE. -Continue to support the Tactical Collapsible Bladder RM. -Continue to support the Beach Receiving Kit Capabilities Requirement Change. -Continue to support the Handheld Inspection Device Development.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2277 / *System Engineering and Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Continue to support the collapsible fuel tank study. -Continue to support the Self-Support Portable Distributed Refueling System. -Continue to evaluate technologies for small unit power in order to inform the Acquisition Requirement for power generation. -Continue to support R&D efforts that explore and quantify engineering characteristics that promote battlefield electrification in support of Presidential Climate Change directives. -Continue alternative energy technologies that will replace legacy systems per Force Design (FD) 2030. -Continue an aviation ground support equipment electrification testing and evaluation effort to support DoD energy and climate objectives. -Continue alternate energy efforts to include man-portable hydrogen fuel cell (HFC) generator prototyping, water production via HFC exhaust capture, HFC battery electric vehicle direct current (DC) fast charging system for tactical and contingence operations, and compressed hydrogen storage aviation testing and airworthiness standards development. -Continue efforts exploring highly efficient, high power, and lightweight range extenders for battery dominant hybrid electric vehicles and modular nuclear reactors. -Continue the research and development of replacements for legacy systems such as the Helicopter Expeditionary Refueling System (HERS), Hose Reel System (HRS), Ground Expeditionary Refueling System (GERS), and the Beach Receiving Unit (BRU). -Continue testing and evaluation of Artic FARP capabilities. -Continue to support signature management studies. -Continue to develop tools and models in support of planning and wargaming related to energy and fuel use. -Continue to support Energy Training and Education objectives like the CQAS program. -Initiate Autonomous Pallet Loader development ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease of $2.906M from FY24 to FY25 is due to completing the evaluation of advanced fuel filter technology, the Hydrogen ULTV, and reduced engineering support required for the Hydrogen Fuel Cell BEV Charger.					
Title: JINTACCS: JCS and DoD CIO Data Links Testing	1.315	1.619	1.481	0.000	1.481
Articles:	-	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2277 / *System Engineering and Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Description: Joint Interoperability of Tactical Command and Control Systems (JINTACCS) is a United States military program for the development and maintenance of tactical information exchange configuration items (CIs) and operational procedures. It was originated to ensure that the command and control (C2 and C3) and weapons systems of all US military services and NATO forces would be interoperable. Marine Corps Systems Command (MARCORSYSCOM) Systems Engineering and Acquisition Logistics directs the JINTACCS Program. Created as a non-acquisition R&D engineering program it provides for critical engineering services in several areas. JINTACCS is essential to USMC development and maintenance of tactical data exchange standards (Link 16, VMF, MTF, etc.), maintenance of C2 systems interoperability issues, development of Net Centric standards (XML, Web Services) to meet requirements of DoD/USMC Net Centric Data Strategy, and participation in Marine Corps, Joint, and Coalition Interoperability Certification testing to DoD/JCS/USMC/NATO requirements. ***FY 2024 Plans:*** - Continue to provide Marine Corps representation at TDL and tactical data message working groups, CCBs, and other interoperability forums. - Continue to assess and represent Marine Corps positions on all TDL and tactical data message ICPs, RFEs, and other initiatives. - Continue data collection and information dissemination associated with the Marine Corps IEP. Enter system bit-level information into the eSMART tool; conduct interoperability assessments of MAGTF systems using the eSMART tool to highlight gaps and identify investment opportunities to meet emerging interoperability needs; continue to provide feedback to JCS representatives concerning shortfalls & recommended improvements to the eSMART tool. - Continue to provide training to Marine Corps Systems Command and Program Executive Office Land Systems programs in the use of the eSMART tool to enter system bit-level information into the eSMART tool; conduct interoperability assessments of MAGTF systems using the eSMART tool to highlight gaps and identify investment opportunities to meet emerging interoperability needs, - Continue to support program office development of tactical data link and tactical data message documentation in support of Joint Interoperability Test Command certifications. - Continue to provide full TDL subject matter expert support to Marine Corps Systems Command and Program Executive Office Land Systems programs to support test, certification, and modernization of Marine Corps capabilities.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2277 / *System Engineering and Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Continue to provide full SME support in implementing, modernizing and sustaining VMF messages to USMC programs to enable them to remain interoperable within the MAGTF and with the naval, joint and coalition forces. (impacts DCGS-MC, GCCS-TCO, JTCW, AFATDS, CAC2S, M777, HIMARS, JWARN, THS, NMESIS, LRF etc.). - Continue to provide full engineering expertise required to plan and implement the USG directed migration of USMC C2 systems and networks to eXtensible Machine Language (XML) - to facilitate continued interoperability with the Joint, naval and coalition force, as well as with other USG agencies.					
FY 2025 Base Plans: - Continue to provide Marine Corps representation at TDL and tactical data message working groups, CCBs, and other interoperability forums. - Continue to assess and represent Marine Corps positions on all TDL and tactical data message ICPs, RFEs, and other initiatives. - Continue data collection and information dissemination associated with the Marine Corps IEP. Enter system bit-level information into the eSMART tool; conduct interoperability assessments of MAGTF systems using the eSMART tool to highlight gaps and identify investment opportunities to meet emerging interoperability needs; provide feedback to JCS representatives concerning shortfalls or recommended improvements to the eSMART tool. - Continue to provide training to Marine Corps Systems Command and Program Executive Office Land Systems programs in the use of the eSMART tool to enter system bit-level information into the eSMART tool; conduct interoperability assessments of MAGTF systems using the eSMART tool to highlight gaps and identify investment opportunities to meet emerging interoperability needs, - Continue to support program office development of tactical data link and tactical data message documentation in support of Joint Interoperability Test Command certifications. - Continue to provide full TDL subject matter expert support to Marine Corps Systems Command and Program Executive Office Land Systems programs to support test, certification, and modernization of Marine Corps capabilities. - Continue to provide full SME support in implementing, modernizing and sustaining VMF messages to USMC programs to enable them to remain interoperable within the MAGTF and with the naval, joint and coalition forces. (GCCS-TCO, JTCW, AFATDS, CAC2S, HIMARS, THS, ARV FoV, NMESIS, etc.).					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2277 / *System Engineering and Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Continue to provide full engineering expertise required to plan and implement the USG directed migration of USMC C2 systems and networks to eXtensible Machine Language (XML) - to facilitate continued interoperability with the Joint, naval and coalition force, as well as with other USG agencies. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY24 to FY25 decrease due to higher Department of the Navy (DON) priorities, which reduces support to implementing, modernizing and sustaining VMF messages to USMC programs.					
Title: SEIC: Engineering and Technical Support	1.263	2.457	2.284	0.000	2.284
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue the integration of MAGTF C2 systems and C4 services with shipboard C2 architectures and C4ISR infrastructures in direct support of 5 MEU deployments via Deploying Group Systems Integration Test (DGSIT). 6 DGSIT events executed or scheduled in support of 11th, 15th, 22nd, 24th and 31st MEUs as well as reach-back & on-site SME support to shipboard C4I network testing & integration. - Participate with PEO-C4I (USN) and Naval Systems Warfare Command (NAVWAR) in the design and systems engineering technical reviews (SETRs) for the next shipboard C4 network wide area network manager - Software Defined Network (SDN), as well as Developmental and operational testing of CANES HW3/SW5 to ensure USMC required network capabilities are incorporated into the baseline design and installation. - Continue to transition to a digital 3D solid model environment to support and align with DoD and DON digital engineering strategies. This will ensure alignment with the modernization efforts outlined within FD2030 as a means of allowing for more efficient and error free support of Marine Corps systems. Data-driven solutions will lead to more opportunities in the advancement of efficient advanced manufacturing processes and increased readiness. Expand support to 3 additional (6 total) programs implementing digital engineering practices. Execute pilot of the Digital Engineering training curriculum with a program. ***FY 2025 Base Plans:*** - Continue the integration of MAGTF C2 systems and C4 services with shipboard C2 architectures and C4ISR infrastructures in direct support of 4 MEU deployments via Deploying Group Systems Integration Test (DGSIT). 5 DGSIT events planned in support of 11th 13th, 22nd and 26th MEUs as well as reach-back & on-site SME support to shipboard C4I network testing & integration.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2277 / *System Engineering and Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Participate with PEO-C4I (USN) and Naval Systems Warfare Command (NAVWAR) in the design and systems engineering technical reviews (SETRs) for the follow-on shipboard C4 network version -CANES HW4/SW6), as well as Developmental and operational testing of the shipboard wide area network manager - Software Defined Network (SDN) - to ensure USMC required network capabilities are incorporated into the baseline design and installation. - Continue to transition to a digital 3D solid model environment (multi-year effort) to support and align with DoD and DON digital engineering strategies. This will ensure alignment with the modernization efforts outlined within FD2030 as a means of allowing for more efficient and error free support of Marine Corps systems. Data-driven solutions will lead to more opportunities in the advancement of efficient advanced manufacturing processes and increased readiness. Expand support to 3 additional (9 total) programs implementing digital engineering practices and expand the scope of processes that are digitized. Administer the Digital Engineering training curriculum to the work force. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease of $0.173M from FY24 to FY25 is due to less DGSIT events in FY25.					
Accomplishments/Planned Programs Subtotals	4.529	17.846	14.629	0.000	14.629

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The System Engineering and Integration programs utilizes a non-traditional acquisition strategy. The program utilizes the Naval Surface Warfare Centers and contractor support for system engineering support services.

EEO - Expeditionary Energy Strategy and Implementation Plan, and priorities identified in the USMC Expeditionary Energy Water and Waste Initial Capabilities Document/Capabilities Based Assessment, as well as Science and Technology Objectives identified in the 2012 USMC S&T Strategic Plan. The program utilize the Naval Surface Warfare Centers for system engineering support services.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
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JINTACCS - Created as a non-acquisition R&D engineering program it provides for critical engineering services in several areas. (JINTACCS) is a United States military program for the development and maintenance of tactical information exchange configuration items (CIs) and operational procedures. It was originated to ensure that the command and control (C2 and C3) and weapons systems of all US military services and NATO forces would be interoperable. MARCORSYSCOM Systems Engineering Directorate, Integration Division directs the JINTACCS Program, and is supported by Marine Corps Tactical Systems Support Activity (MCTSSA).

SEIC - Provides the decision support tools and engineering analysis resources needed to assess, identify and resolve Marine Air Ground Task Force (MAGTF) inter-systems' SoS issues and challenges. SEIC supports the Marine Corps in the analysis, evaluation, and assessment of MAGTF Systems and SoS requirements. The program utilizes the Naval Surface Warfare Centers and contractor support for system engineering support services.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2277 / *System Engineering and Integration*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hydrogen Fuel Cell BEV Charger	WR	Naval Research Lab : Washington, DC	0.000	0.000		1.100	Feb 2024	0.500	Feb 2025	-		0.500	0.000	1.600	-
Hydrogen ULTV (H2 RZR)	WR	US Army GVSC : Detroit, MI	0.000	0.000		0.400	Feb 2024	0.000		-		0.000	0.000	0.400	-
Tactical Range Extender - Enhanced (TREE)	WR	US Army GVSC : Detroit, MI	0.000	0.000		1.000	Feb 2024	1.000	Feb 2025	-		1.000	0.000	2.000	-
AMPOL Mobile Nuclear Reactor	MIPR	Los Alamos National Lab : Los Alamos, NM	0.000	0.000		1.000	Feb 2024	1.000	Feb 2025	-		1.000	0.000	2.000	-
Prior Years Cumulative Funding	Various	Various : Various	10.899	0.000		0.000		0.000		-		0.000	0.000	10.899	-
		Subtotal	10.899	0.000		3.500		2.500		-		2.500	0.000	16.899	N/A

Remarks

Decrease is due to reduced engineering support required for the the Hydrogen Fuel Cell BEV Charger and completing the Hydrogen ULTV in FY 2024.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MAGTF SEI&C	WR	NSWC : Dahlgren, VA	5.965	0.000		1.300	Nov 2023	1.100	Nov 2024	-		1.100	Continuing	Continuing	Continuing
MAGTF SEI&C	WR	NSWC : DAM NECK, VA	0.420	0.225	Nov 2022	0.200	Nov 2023	0.200	Nov 2024	-		0.200	0.000	1.045	-
MAGTF SEI&C	C/FP	MANTECH : Stafford, VA	2.809	0.519	Nov 2022	0.379	Jan 2024	0.392	Jan 2025	-		0.392	0.000	4.099	-
MAGTF SEI&C	WR	NIWC-LANT : Charleston, SC	0.000	0.547	Mar 2023	0.578	Nov 2023	0.592	Nov 2024	-		0.592	0.000	1.717	-
JINTACCS	C/FFP	MCTSSA : Camp Pendleton, CA	3.209	0.832	Apr 2023	1.054	Apr 2024	0.811	Apr 2025	-		0.811	0.000	5.906	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*	Project (Number/Name) 2277 / *System Engineering and Integration*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JINTACCS	C/FFP	MANTECH : Quantico, VA	0.889	0.208	Jan 2023	0.250	Jan 2024	0.300	Jan 2025	-		0.300	0.000	1.647	-
JINTACCS	C/FFP	GDIT : Stafford, VA	0.000	0.225	Apr 2023	0.250	Apr 2024	0.300	Apr 2025	-		0.300	0.000	0.775	-
E2O-Experimentionary Advanced Base Operations	WR	Various : Various	2.968	0.100	Feb 2023	0.200	Feb 2024	0.000	Apr 2025	-		0.000	0.000	3.268	-
E2O-Small Unit Power (SUP)	WR	NSWC : Carderock	1.745	0.380	Feb 2023	0.000		0.500	Feb 2025	-		0.500	0.000	2.625	-
E2O-Experimentionary Advanced Base Operations	WR	NAVFAC EXWC : Port Hueneme, CA	1.517	0.000		2.000	Jan 2024	0.250	Feb 2025	-		0.250	0.000	3.767	-
E2O-Experimentionary Advanced Base Operations	WR	NSWC : Panama City, FL	0.863	0.000		1.270	Jan 2024	1.000	Feb 2025	-		1.000	0.000	3.133	-
E2O-Lightweight Energy Storage (REPS)	WR	NSWC : Crane, IN	1.588	0.380	Feb 2023	0.000		0.500	Feb 2025	-		0.500	0.000	2.468	-
E2O-Experimentionary Advanced Base Operations	C/FFP	DTIC : FT. Belvoir	0.425	0.000		1.000	Feb 2024	0.500	Feb 2025	-		0.500	0.000	1.925	-
E2O-Experimentionary Advanced Base Operations	WR	NSWC Dahlgreen : Dahlgren, VA	0.894	0.000		0.000		0.000		-		0.000	0.000	0.894	-
E2O-Experimentionary Advanced Base Operations	WR	Naval Research Lab : Washington, DC	0.462	0.436	Feb 2023	0.000		1.500	Feb 2025	-		1.500	0.000	2.398	-
E2O-Experimental Forward Operating Base	WR	Various : Various	0.000	0.655	Nov 2022	0.000		0.000		-		0.000	0.000	0.655	-
E2O-Experimental Forward Operating Base	WR	NAVAIR : Patuxent River, MD	0.000	0.000		1.000	Jan 2024	0.500	Feb 2025	-		0.500	0.000	1.500	-
E2O-Experimental Forward Operating Base	WR	DIU : Colorado Springs, CO	0.000	0.000		2.000	Feb 2024	0.500	Feb 2025	-		0.500	0.000	2.500	-
Prior Years Cumulative Funding	Various	Various : Various	6.488	0.000		0.000		0.000		-		0.000	0.000	6.488	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2277 / *System Engineering and Integration*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	30.242	4.507		11.481		8.945		-		8.945	Continuing	Continuing	N/A

Remarks

E2O:
Decrease is due to completing the evaluation of advanced fuel filter technology that would drastically reduce weight and space.

MAGTF SEI&C:
Decrease is due to less DGSIT events in FY25.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	WR	NAWCAD Lakehurst : Lakehurst, NJ	0.000	0.000		0.500	May 2024	1.300	Feb 2025	-		1.300	0.000	1.800	-
Developmental Test & Evaluation (DT&E)	MIPR	DIU : Colorado Springs, CO	0.000	0.000		1.000	Feb 2024	1.000	Feb 2025	-		1.000	0.000	2.000	-
Developmental Test & Evaluation (DT&E)	WR	NAWCAD : Patuxent River, MD	0.000	0.000		1.300	Feb 2024	0.314	Feb 2025	-		0.314	0.000	1.614	-
Developmental Test & Evaluation (DT&E)	MIPR	SWRI : San Antonio, Texas	0.000	0.000		0.000		0.500	Feb 2025	-		0.500	0.000	0.500	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	Various : Various	7.611	0.000		0.000		0.000		-		0.000	0.000	7.611	-
		Subtotal	7.611	0.000		2.800		3.114		-		3.114	0.000	13.525	N/A

Remarks

Increase is due to a combination of program growth profile and DoD increased E2O Expeditionary Energy efforts. These include Aviation Ground Support Equipment (GSE) Electrification Experimentation and Hydrogen Storage Aviation Safety Testing and Standards.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2277 / *System Engineering and Integration*

Management Services ($ in Millions)

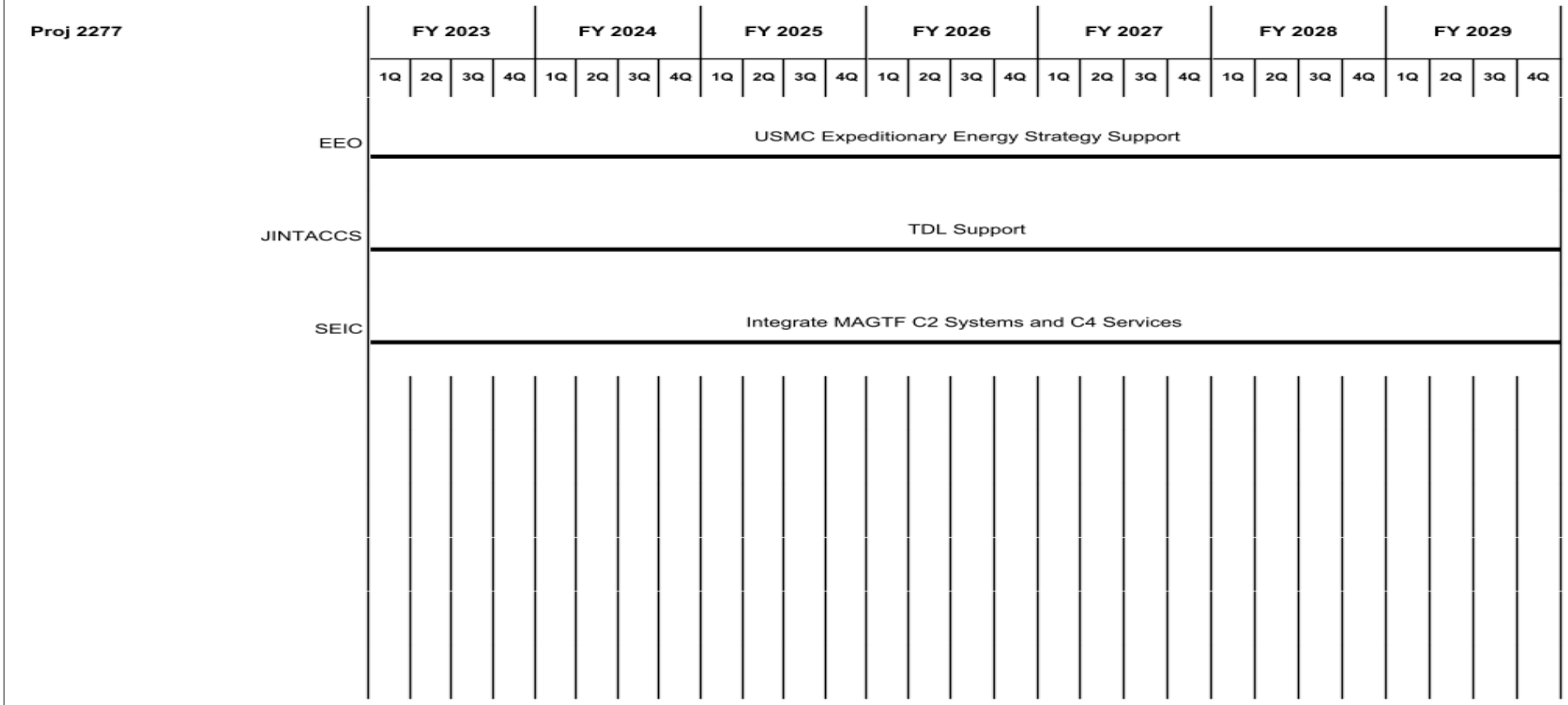
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JINTACCS-Travel	Various	PROGRAM : TRAVEL	0.527	0.022	Jun 2023	0.065	Aug 2024	0.070	Jun 2025	-		0.070	Continuing	Continuing	Continuing
		Subtotal	0.527	0.022		0.065		0.070		-		0.070	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	49.279	4.529		17.846		14.629		-		14.629	Continuing	Continuing	N/A

Remarks

Overall decrease is due to completing the evaluation of advanced fuel filter technology, the Hydrogen ULTV, and reduced engineering support required for the Hydrogen Fuel Cell BEV Charger.

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2277 / *System Engineering and Integration*



2025DON - 0206313M - 2277

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2277 / *System Engineering and Integration*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2277				
EEO: USMC Expeditionary Energy Strategy Support	1	2023	4	2029
JINTACCS: TDL Support	1	2023	4	2029
SEIC: Integrate MAGTF C2 Systems and C4 Services	1	2023	4	2029

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*	Project (Number/Name) 2510 / *MAGTF CSSE & SE*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
2510: *MAGTF CSSE & SE*	290.962	0.941	1.021	1.019	-	1.019	1.039	1.056	1.077	1.100	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

(U) The Marine Air Ground Task Force (MAGTF) Combat Service Support Element & Supporting Establishment (CSSE & SE) consists of mutually supporting Logistics Information Technology (IT) programs that support force deployment, planning, and execution; sustainment and distribution; and contributes to the Combatant Commander's Common Operating Picture to support rapid accurate decision making.

JOINT FORCE REQUIREMENTS GENERATOR II (JFRG II) is an Automated Information System (AIS), standalone desktop software application that operates in a classified environment to provide the Marine Corps users the capability to support Joint Command and Control (JC2) contingency and crisis deployment operations and plans. It serves as the single link between the Joint Operation Planning and Execution System (JOPES), Sea Service Deployment Module (SSDM) and War Reserve System (WRS)/Integrated Materiel Solution Toolset (IMAT). JFRG II desktop application permits multi-level planning with entry of Time-Phased Force and Deployment Data (TPFDD), including equipment and personnel data, transportation/movement data, and the phasing of the total force throughout the entire movement timeline. JFRG II desktop application generates standard, executive, and ad hoc reports and performs database queries to support JC2 deployment requirements.

MAGTF LOGISTICS SUPPORT SYSTEMS (MLS2): This is a Marine Corps Force Design Program. Composed of several main components including the Electronic Maintenance Support System (EMSS). EMSS is a rugged organizational-level (O-level), light-weight, one-man portable maintenance device capable of supporting multiple platforms and systems across maintenance communities. It provides a Commercial Off-The-Shelf (COTS) hardware device equipped with Built-In-Test/ Built-In-Test Equipment interfaces, and Software Defined Test Instrument General Purpose Electronic Test Equipment capabilities. These hardware capabilities will enable commercial or custom DoD and USMC software capabilities including interactive electronic technical manuals, computer based training, and other maintenance applications to be hosted on EMSS. EMSS also has the capability to connect to the Marine Corps Enterprise Network and access sites like Global Combat Support System - Marine Corps in order to facilitate maintenance and supply transactions, thereby improving readiness. With these capabilities, maintainers will make more informed decisions and sustain force readiness over time.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: JOINT FORCE REQUIREMENTS GENERATION II (JFRG II)	0.201	0.217	0.208	0.000	0.208
Articles:	-	-	-	-	-
FY 2024 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2510 / *MAGTF CSSE & SE*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- JFRG II will deploy J-PT to the Navy Impact Level (IL) 5 Unclassified and IL 6 Cloud Classified Amazon Web Services Environments to complete a Government Acceptance Test Event to deploy the upgraded system baseline. ***FY 2025 Base Plans:*** - JFRG II will continue to develop upgrades to the J-PT and desktop application to keep pace with JOPES/JPES transition and JC2 operational requirements. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** No significant change.					
Title: MAGTF LOGISTICS SUPPORT SYSTEMS (MLS2)	0.740	0.804	0.811	0.000	0.811
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue to develop the use of Artificial Intelligence (AI) to perform hardware bench testing of EMSS, WATS, and other connected hardware. Initiate the usage data tracking software to provide data to AI and Machine Learning (ML) algorithms to streamline the EMSS user experience. - Continue to develop additional GOTS diagnostic software capability for additional Heavy Equipment, Motor Transport, Ordnance and Engineer weapon systems in order to enhance maintenance capabilities, migrate away from more expensive commercial off the shelf (COTS) solutions, and decrease total ownership cost (TOC) for supported platforms. ***FY 2025 Base Plans:*** - Continue to develop the use of Artificial Intelligence (AI) to perform hardware bench testing of EMSS, WATS, and other connected hardware. Initiate the usage of the AI and Machine Learning (ML) algorithms to streamline the EMSS user experience and usage of AI to automate testing of EMSS software and hardware baselines. - Continue to develop additional GOTS diagnostic software capability for additional Heavy Equipment, Motor Transport, Ordnance and Engineer weapon systems in order to enhance maintenance capabilities, migrate away from more expensive commercial off the shelf (COTS) solutions, and decrease total ownership cost (TOC) for supported platforms. ***FY 2025 OCO Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2510 / *MAGTF CSSE & SE*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The increase of $0.007M from FY24 to FY25 supports required AI testing and initiation.					
Accomplishments/Planned Programs Subtotals	0.941	1.021	1.019	0.000	1.019

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• PMC/BLI 4181: *MAGTF Logistics Support Systems*	12.434	12.683	12.937	-	12.937	13.197	13.462	13.732	14.020	Continuing	Continuing

Remarks

D. Acquisition Strategy

JOINT FORCE REQUIREMENTS GENERATOR II (JFRG II) desktop application requires upgrades in order to continuously support the JC2 Capabilities Development Document requirements and keep pace with JOPES transition. JOPES will be replaced with the Joint Planning and Execution Services (JPES) in FY24. JFRG II Planning Toolset, a web application with the cross-domain solution is in development by the Marine Corps to automate TPFDD sharing between JOPES/JPES, SSDM, and WRS/IMAT via unclassified and classified servers. The upgrades will increase data protection and data processing efficiency to meet current cybersecurity requirements and replace the current air gap procedure. JFRG II desktop software application will remain supported until end of life or it is replaced by another application.

MAGTF LOGISTICS SUPPORT SYSTEMS (MLS2) is pursuing an evolutionary acquisition strategy in order to sustain operationally suitable and supportable capability across the Marine Corps as a maintenance aid. Electronic Maintenance Support Systems must evolve in concert with the supported platforms maintenance philosophy to provide extended functionality and access to network connectivity.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*	Project (Number/Name) 2510 / *MAGTF CSSE & SE*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JFRG II	C/IDIQ	SAIC : Stafford, VA	2.706	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
JFRG II	WR	NIWC LANT : Charleston, SC	0.951	0.201	Jan 2023	0.217	Jan 2024	0.208	Jan 2025	-		0.208	Continuing	Continuing	Continuing
JFRG II	WR	DISA : Ft Meade, MD	0.562	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
OT&E EMSS/MAGTF Logistics Support Systems	WR	NSWC, Crane : Crane, IN	3.490	0.740	Feb 2023	0.804	Feb 2024	0.811	Feb 2025	-		0.811	Continuing	Continuing	Continuing
Prior Years Cumulative Funding	Various	Various : Various	283.253	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	290.962	0.941		1.021		1.019		-		1.019	Continuing	Continuing	N/A

Remarks

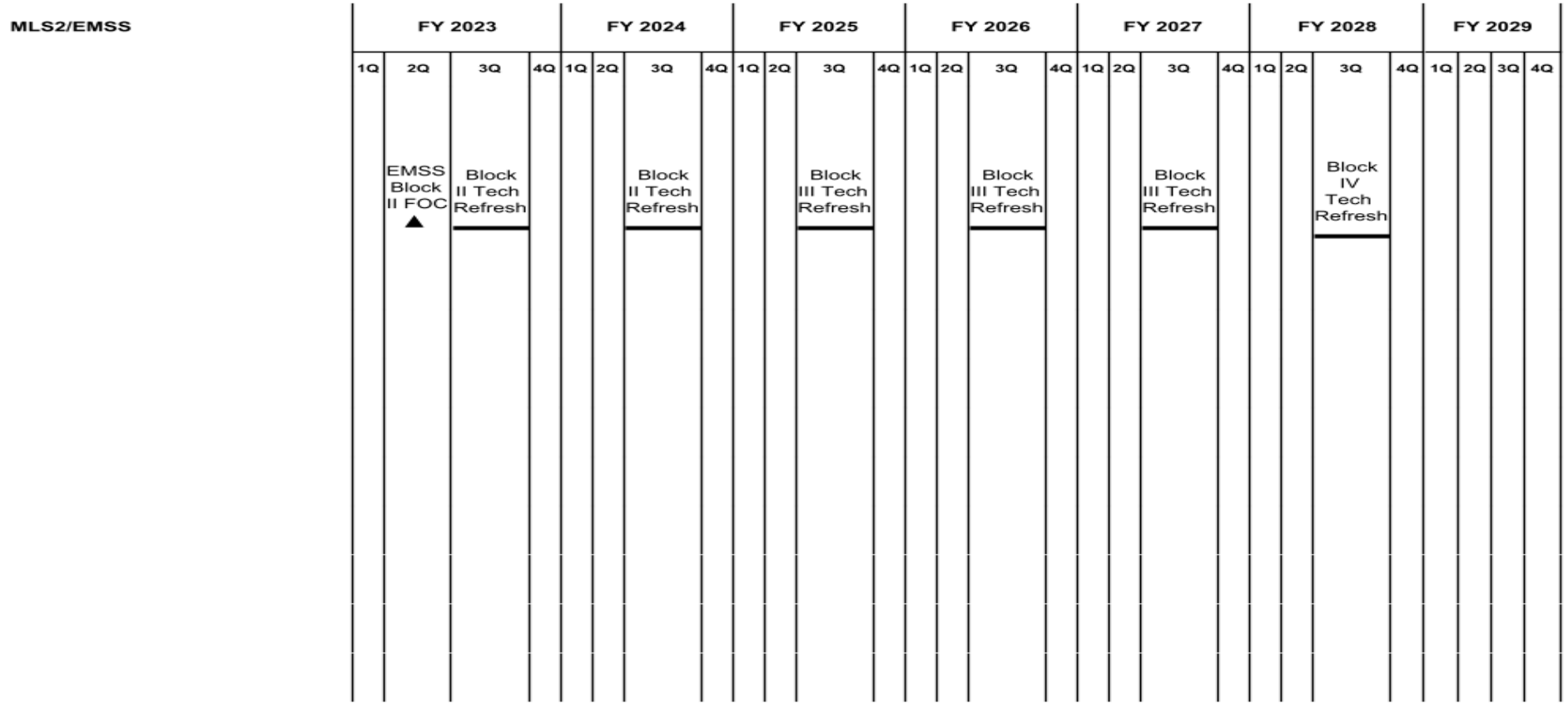
No significant change.

	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	290.962	0.941		1.021		1.019		-		1.019	Continuing	Continuing	N/A

Remarks

No significant change.

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2510 / *MAGTF CSSE & SE*



2025DON - 0206313M - 2510

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2510 / *MAGTF CSSE & SE*

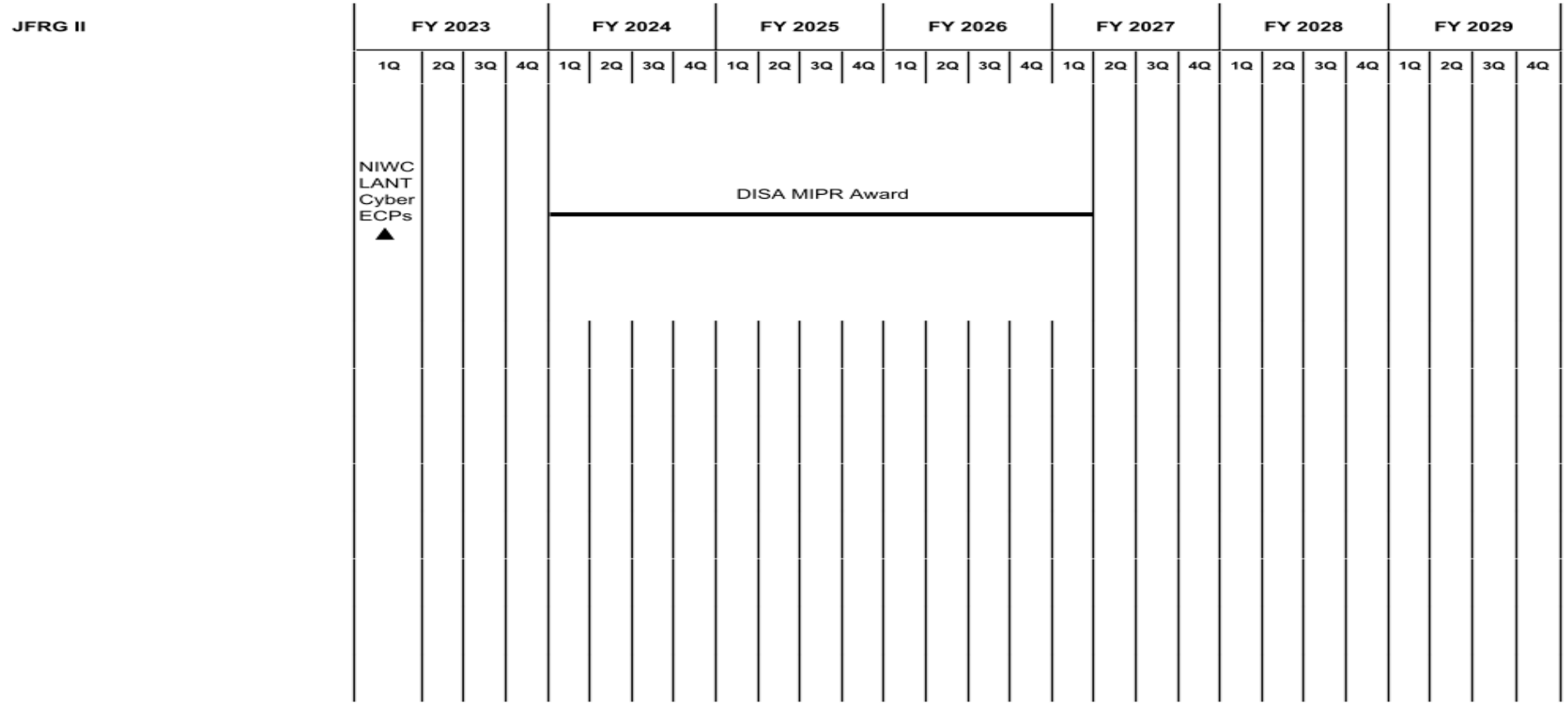


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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 2510 / *MAGTF CSSE & SE*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MLS2/EMSS				
FY22 EMSS Block II FOC	2	2023	2	2023
FY23 EMSS Block II Refresh	3	2023	3	2023
FY24 EMSS Block II Refresh	3	2024	3	2024
FY25 EMSS Block III Refresh	3	2025	3	2025
FY26 EMSS Block III Refresh	3	2026	3	2026
FY27 EMSS Block III Refresh	3	2027	3	2027
FY28 EMSS Block IV Refresh	3	2028	3	2028
FY29 EMSS Block IV Refresh	3	2029	3	2029
JFRG II				
Cont. Development of CDS Platform (J-PT)	1	2024	1	2027
ECP for Cyber Compliance	1	2023	1	2023

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy										Date: March 2024		
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*				Project (Number/Name) 3099 / *Radar System*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
3099: *Radar System*	230.177	1.023	4.028	3.626	-	3.626	3.460	3.480	3.507	3.581	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Long Range Radar (AN/TPS-59) - The AN/TPS-59A(V)3 is a transportable, three dimensional, tactical radar system that provides the Marine Air Ground Task Force (MAGTF) with long-range surveillance. It is the MAGTF's only ground based long range sensor that provides the capability to detect and report Air Breathing Targets (ABT) and track Theater Ballistic Missiles (TBM). The AN/TPS-59A(V)3 Radar System is connected to the Common Aviation Command and Control Systems (CAC2S). It provides the air defense controllers data and may be used autonomously to conduct Ground Control Intercept, tactical en-route Air Traffic Control (ATC), or TBM alert operations via the Joint Integrated Air Missile Defense (IAMD) encrypted Link-16. AN/TPS-59 funding zeroed beginning FY 2021 due to Marine Corps decision to modernize in accordance with the National Defense Strategy (NDS)/Defense Planning Guidance (DPG).

Virtual Warfare Center (VWC) Support - The project team conducts fully interactive simulated war games at the Virtual Warfare Center (VWC) in St. Louis, MO, in order to quantify family of systems performance and how it impacts effectiveness in the Integrated Air and Missile Defense (IAMD) mission area. The VWC provides a venue for the exploration of advanced engagement concepts focused on persistent forward naval engagements in support of the MAGTF and the development of associated Joint and Service specific tactics, techniques, and procedures (TTPs). VWC support encompasses a set of integrated fire control (IFC) activities that also includes concept/CONOPS development, family of systems architecture development, and systems engineering/integration efforts.

Prior to FY 2024, the VWC program was also funded in Program Element 0604504N Air Control Project 0718. In FY 2024 and out, the entirety of VWC funding is consolidated under PE 0206313M Project 3099.

FY 2024 to FY 2025 decrease is due to decreased simulation efforts required to determine system performance in the IAMD mission area.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Title: VWC: Support	0.773	3.778	3.376	0.000	3.376
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue the simulation of war games at the VWC in St. Louis, MO, in order to quantify family of systems performance and how it impacts effectiveness in the Integrated Air and Missile Defense (IAMD) mission area.					
FY 2025 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3099 / *Radar System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Continue the simulation of war games at the VWC in St. Louis, MO, in order to quantify family of systems performance and how it impacts effectiveness in the Integrated Air and Missile Defense (IAMD) mission area. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease of $0.402M from FY 2024 to FY 2025 reflects decrease of simulation efforts required to determine system performance in the Integrated Air and Missile Defense (IAMD) mission area.					
Title: VWC: Test and Evaluation	0.250	0.250	0.250	0.000	0.250
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue the simulation of war games at the VWC in St. Louis, MO, in order to quantify family of systems performance and how it impacts effectiveness in the Integrated Air and Missile Defense (IAMD) mission area. ***FY 2025 Base Plans:*** - Continue the simulation of war games at the VWC in St. Louis, MO, in order to quantify family of systems performance and how it impacts effectiveness in the Integrated Air and Missile Defense (IAMD) mission area. ***FY 2025 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	1.023	4.028	3.626	0.000	3.626

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Virtual Warfare Center (VWC) Support - The project team conducts fully interactive simulated war games at the VWC in St. Louis, MO, in order to quantify family of systems performance and how it impacts effectiveness in the Integrated Air and Missile Defense mission area. VWC support encompasses a set of integrated fire control activities that also includes concept and concept of operations development, family of systems architecture development, and systems engineering/integration efforts. The Office of Naval Research is the lead for all VWC contracting actions.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3099 / *Radar System*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/TPS-59 - DREX EDM Development	SS/CPFF	LMC : Syracuse, NY	11.536	0.000		0.000		0.000		-		0.000	0.000	11.536	-
AN/TPS-59 - DREX EDM Development Program Management	SS/CPFF	LMC : Syracuse, NY	6.927	0.000		0.000		0.000		-		0.000	0.000	6.927	-
Prior Year Cumulative Funding	Various	Various : Various	90.234	0.000		0.000		0.000		-		0.000	0.000	90.234	-
		Subtotal	108.697	0.000		0.000		0.000		-		0.000	0.000	108.697	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/TPS-59 - Engineering Support	C/FFP	MCSC : Quantico, VA	4.189	0.000		0.000		0.000		-		0.000	0.000	4.189	-
VWC	C/CPFF	ONR : St. Louis, MO	27.852	0.773	Feb 2023	3.778	Feb 2024	3.376	Feb 2025	-		3.376	Continuing	Continuing	Continuing
Prior Year Cumulative Funding	Various	Various : Various	52.687	0.000		0.000		0.000		-		0.000	0.000	52.687	-
		Subtotal	84.728	0.773		3.778		3.376		-		3.376	Continuing	Continuing	N/A

Remarks

FY 2024 to FY 2025 decrease is due to decreased simulation efforts required to determine system performance in the IAMD mission area.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	C/CPFF	NSWC, Corona : Corona, CA	0.692	0.000		0.000		0.000		-		0.000	0.000	0.692	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*	Project (Number/Name) 3099 / *Radar System*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	C/CPFF	LMC : Syracuse, NY	0.817	0.000		0.000		0.000		-		0.000	0.000	0.817	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	MIPR	AIMS Prog Office : Warner Robbins AFB, GA	0.029	0.000		0.000		0.000		-		0.000	0.000	0.029	-
Developmental Test & Evaluation (DT&E)	C/CPFF	ONR : St. Louis, MO	2.650	0.250	May 2023	0.250	May 2024	0.250	May 2025	-		0.250	0.000	3.400	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	Various : Various	4.683	0.000		0.000		0.000		-		0.000	0.000	4.683	-
		Subtotal	8.871	0.250		0.250		0.250		-		0.250	0.000	9.621	N/A

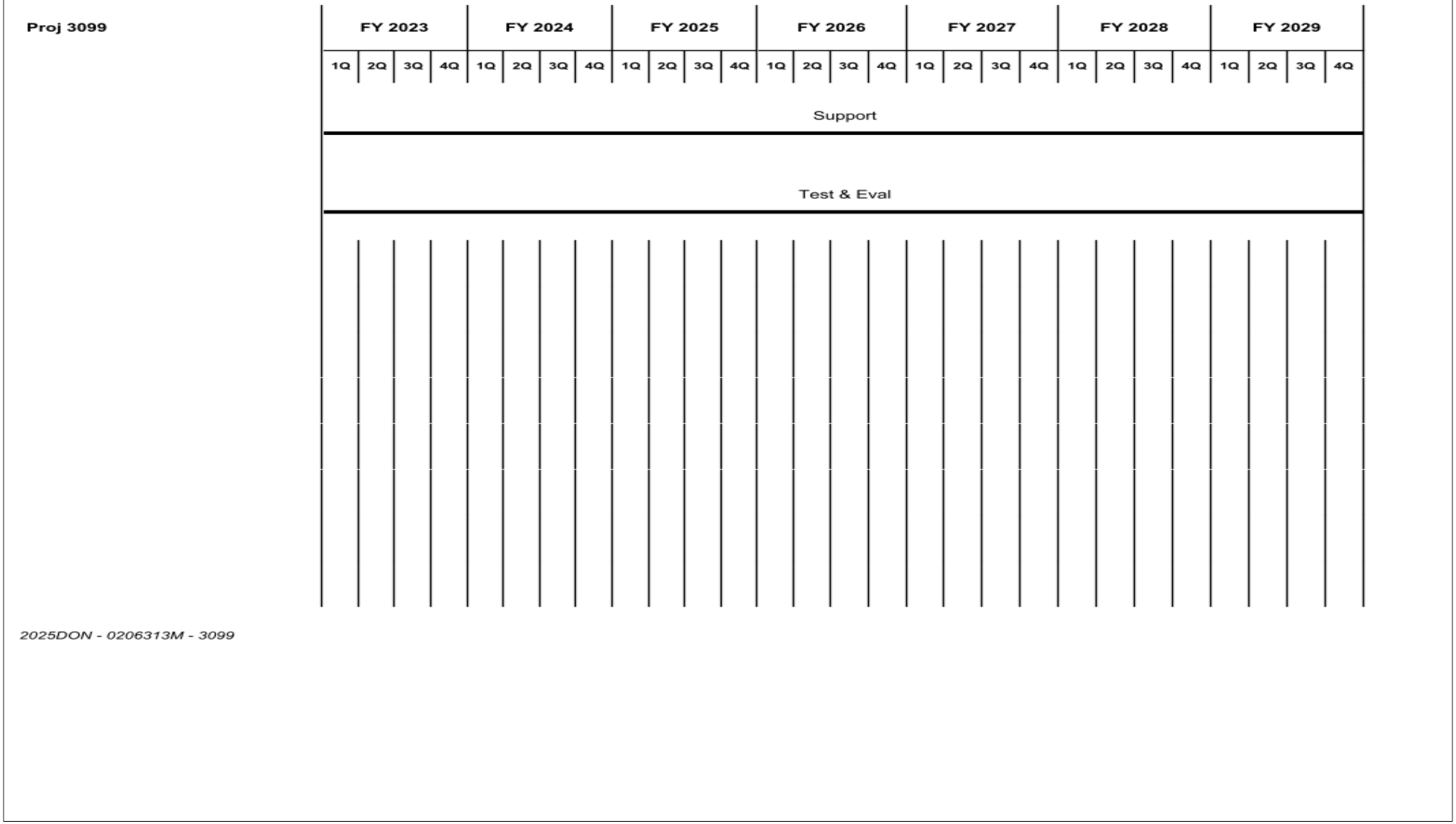
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/TPS-59 Engineering Support	MIPR	MITRE : Bedford, MA	1.900	0.000		0.000		0.000		-		0.000	0.000	1.900	-
Prior Year Cumulative Funding	Various	Various : Various	25.981	0.000		0.000		0.000		-		0.000	0.000	25.981	-
		Subtotal	27.881	0.000		0.000		0.000		-		0.000	0.000	27.881	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	230.177	1.023		4.028		3.626		-		3.626	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3099 / *Radar System*



2025DON - 0206313M - 3099

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3099 / *Radar System*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3099				
VWC Support	1	2023	4	2029
VWC Test and Evaluation	1	2023	4	2029

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*	Project (Number/Name) 3270 / *Sec. 2912 Operational Energy Savings*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
3270: *Sec. 2912 Operational Energy Savings*	0.776	12.092	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	12.868
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Expeditionary Energy Office (E2O): The Commandant established the USMC Expeditionary Energy Office (E2O), with the mission to analyze, develop, and direct the Marine Corps' energy strategy in order to optimize expeditionary capabilities across all warfighting functions. E2O's role is to advise the Marine Requirements Oversight Council (MROC) on all energy and resource related requirements, acquisitions, and programmatic decisions. This office, both personnel and funding, directly supports execution of the USMC Expeditionary Energy Strategy and Implementation Plan, and priorities identified in Force Design 2030. The Marine Corps program aligns with the Commandant's Planning Guidance, the National Defense Authorization Act, DoD directives and SECNAV goals. This funding will support the achievement of the Strategy, and the activities of the USMC Expeditionary Energy Concepts process, managed by the E2O.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Expeditionary Energy Office (E2O)	12.092	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2024 Plans: N/A					
FY 2025 Base Plans: N/A					
FY 2025 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	12.092	0.000	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3270 / *Sec. 2912 Operational Energy Savings*

D. Acquisition Strategy

EEO - Expeditionary Energy Strategy and Implementation Plan, and priorities identified in the USMC Expeditionary Energy Water and Waste Initial Capabilities Document/Capabilities Based Assessment, as well as Science and Technology Objectives identified in the 2012 USMC S&T Strategic Plan. The program utilize the Naval Surface Warfare Centers for system engineering support services.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*	Project (Number/Name) 3270 / *Sec. 2912 Operational Energy Savings*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Tactical Hydrogen Generator - Electrolysis	MIPR	DIU : Arsenal, NJ	0.000	0.750	Jul 2023	0.000		0.000		-		0.000	0.000	0.750	-
EFRSAT	MIPR	DTIC : Ft. Belvoir, VA	0.000	0.431	Jan 2024	0.000		0.000		-		0.000	0.000	0.431	-
Bison and HERS	MIPR	DTIC : Ft. Belvoir, VA	0.000	0.150	Jan 2024	0.000		0.000		-		0.000	0.000	0.150	-
Packable Fuel Cell	MIPR	NRL : DC	0.000	0.787	Jan 2024	0.000		0.000		-		0.000	0.000	0.787	-
HyTEC	MIPR	ACC-NJ : Arsenal, NJ	0.000	2.073	Jan 2024	0.000		0.000		-		0.000	0.000	2.073	-
HIPE FC	MIPR	NAVAIR : Patuxent River, MD	0.000	0.397	Jan 2024	0.000		0.000		-		0.000	0.000	0.397	-
H2 Charge	MIPR	CCDC : Warren, MI	0.000	0.630	Jan 2024	0.000		0.000		-		0.000	0.000	0.630	-
Mini Willy and CFCS	MIPR	NAVAIR : Patuxent River, MD	0.776	0.000	Jan 2024	0.000		0.000		-		0.000	0.000	0.776	-
Family of Fuel Systems COE	MIPR	DTIC : Ft. Belvoir, VA	0.000	0.692	Jan 2024	0.000		0.000		-		0.000	0.000	0.692	-
JFARP	C/BA	DTIC : Ft. Belvoir, VA	0.000	2.555	Feb 2024	0.000		0.000		-		0.000	0.000	2.555	-
Beach Receiving Unit	C/BA	NAVFAC EXWC : Port Hueneme, CA	0.000	0.500	Feb 2024	0.000		0.000		-		0.000	0.000	0.500	-
H-SUP	C/BA	NRL : DC	0.000	0.476	Dec 2023	0.000		0.000		-		0.000	0.000	0.476	-
T&E	C/BA	DTIC : Ft. Belvoir, VA	0.000	0.510	Feb 2024	0.000		0.000		-		0.000	0.000	0.510	-
NPS Academic Spt to MCU	C/BA	NPS : Quantico, VA	0.000	0.391	Feb 2024	0.000		0.000		-		0.000	0.000	0.391	-
		Subtotal	0.776	10.342		0.000		0.000		-		0.000	0.000	11.118	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3270 / *Sec. 2912 Operational Energy Savings*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hydrogen fuel cells	MIPR	NRL : Not Specified	0.000	0.480	Jul 2023	0.000		0.000		-		0.000	0.000	0.480	-
Tactical Hydrogen Storage (THS)	C/BA	DIU : Arsenal, NJ	0.000	0.770	Jul 2023	0.000		0.000		-		0.000	0.000	0.770	-
Research Assistance on Energy and Climate Change	C/FFP	MCU : Quantico, VA	0.000	0.200	Jul 2023	0.000		0.000		-		0.000	0.000	0.200	-
		Subtotal	0.000	1.450		0.000		0.000		-		0.000	0.000	1.450	N/A

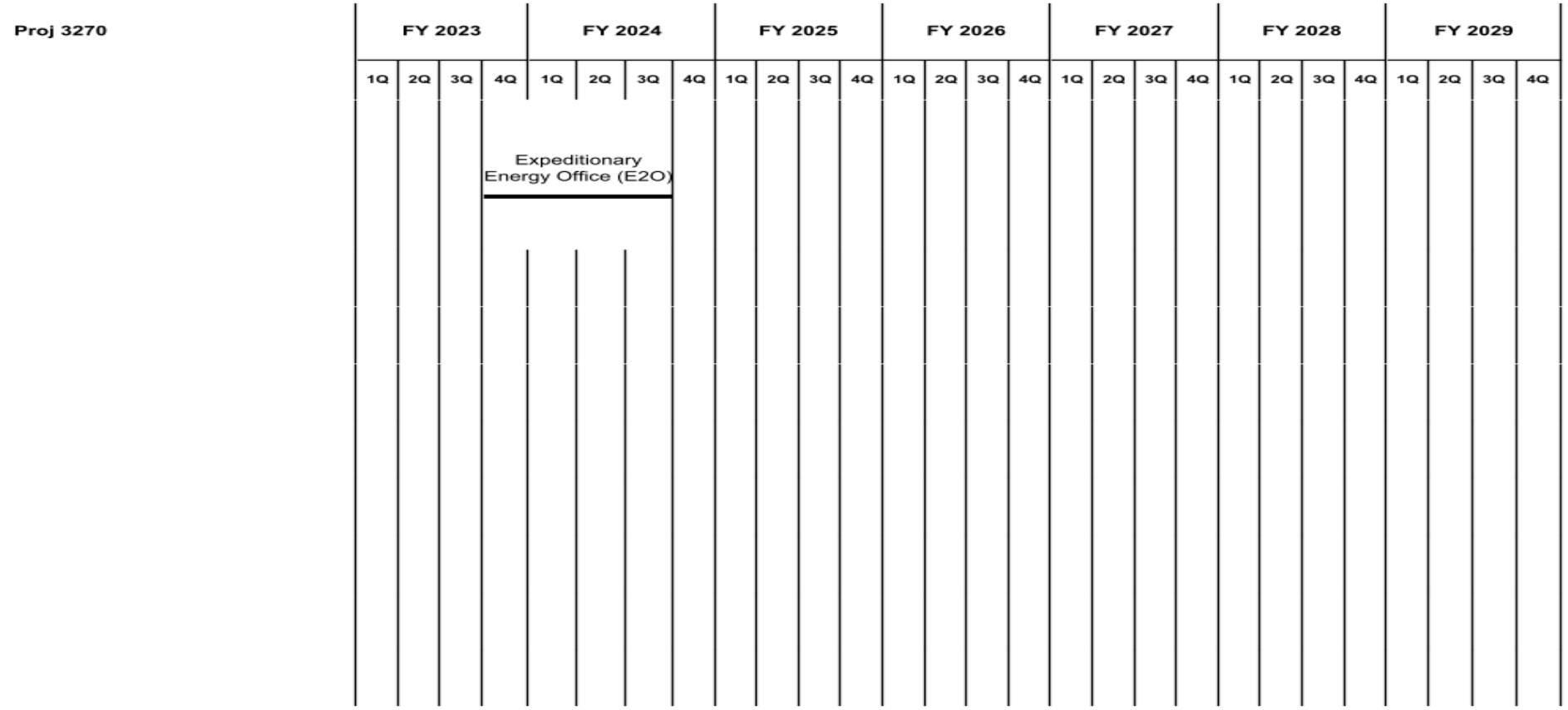
Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	MIPR	NSWC Carderock : Bethesda, MD	0.000	0.300	Jul 2023	0.000		0.000		-		0.000	0.000	0.300	-
		Subtotal	0.000	0.300		0.000		0.000		-		0.000	0.000	0.300	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.776	12.092		0.000		0.000		-		0.000	0.000	12.868	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3270 / *Sec. 2912 Operational Energy Savings*



2025DON - 0206313M - 3270

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3270 / *Sec. 2912 Operational Energy Savings*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3270				
Expeditionary Energy Office (E2O)	4	2023	3	2024

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*				Project (Number/Name) 3772 / *Information Related Capabilities (IRC)*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
3772: *Information Related Capabilities (IRC)*	15.681	4.989	17.672	14.856	-	14.856	18.681	17.988	17.332	17.890	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Signature Management (SIGMAN) - This is a CMC Force Design program. SIGMAN will be utilized by the Marine Corps Information Operations Center (MCIOC) SIGMAN platoon to provide commanders with the ability to understand their own forces' electromagnetic signatures and the ability to disrupt adversary units. SIGMAN supports the goals of the 38th Commandant's Planning Guidance and Force Design (FD) Initial Operational Capability (IOC) by providing tools enabling the FMF to conduct distributed operations (DO) and mass effects while minimizing electromagnetic signatures that put forces at risk for detection and targeting. Fluctuations within the funding profile due to different components being procured each year. SIGMAN Increment I is the SIGMAN Visualization and Planning Tool (SVPT) that provides commanders a display of their own forces electromagnetic signatures and the ability to implement measures to limit those signatures when possible. SIGMAN Increment II is the Radio Frequency (RF) Generator-Light and SIGMAN Increment III is the RF Generator- Heavy. The SIGMAN Increment II and Increment III systems will provide commanders the ability to develop and project electromagnetic signature countermeasures to mask their own blue-force signature. Cognitive Radio Frequency Inference Technology (CRIT) provides the ability to conduct blue force signature assessment, blue force signature planning, and advanced delivery. SIGMAN will procure production articles through the Lead Systems Integrator and the Army C5ISR program office. This program includes funding in support of YETI in which details are held at a higher classification level.

Digital Media Systems (DMS) System of Systems (SoS) equips Communication Strategy and Operations (COMMSTRAT) Marines who support the Marine Corps, Joint Force, DoD, and United States Government (USG) efforts through the proactive, coordinated, and synchronized (or deliberately timed) release of accurate information to internal, domestic, and international audiences to put operations in context, facilitate informed perceptions about military operations, undermine adversarial propaganda and disinformation, and help achieve national, strategic, and operational objectives. The DMS program maintains pace with modernized systems to meet COMMSTRAT Marines' mission needs to provide them a global competitive edge in the information environment. DMS provides COMMSTRAT Marines with the capability to acquire unclassified and classified visual information (VI) to include still and motion photography, audio video recording, graphic arts, and visual presentations. DMS enables COMMSTRAT Marines to excel at processing imagery to produce digital and physical VI products, multi-media products, all while using near-real time transmission capabilities, and long-term VI records storage to ensure VI lifecycle management within the confines of Department of Defense (DoD) policy and U.S. law. DMS enables expedient, 24/7, global access to the information environment and is crucial to planning, battlespace awareness, decision-making processes and engaging key publics. This effort supports research, testing, and evaluation of the Public Affairs Live Media Engagement System tech refresh and the Tactical Imagery Production System Next Generation (TIPS NG) to provide the FMF with the means to acquire, process, edit, develop, disseminate, transmit in near-real time, archive visual information (VI) products, and provide reprographics print speeds in support of Marine Corps missions across the competition continuum.

Military Information Support Operations (MISO) - Consists of the Fly Away Broadcast System (FABS) Marine Corps Variant (MCV) Family of Systems (FoS). The FABS MCV FOS provides the Marine Air Ground Task Force (MAGTF) Commander with a transportable, modular system capable of conveying and delivering messages via select bands within the radio frequency portion of the electromagnetic spectrum to influence select foreign groups and promote themes to change those groups'

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3772 / *Information Related Capabilities (IRC)*

attitudes and behaviors. MISO capabilities are critical to the success of the MAGTF mission, enabling commanders to shape the information environment, counter enemy propaganda, misinformation, disinformation, and adversarial narratives. The FABS MCV FoS contains three variants: FABS Heavy (FABS-H), FABS Medium (FABS-M), and FABS Light (FABS-L). The FABS-H variant will provide greater power, range, persistence, and capacity used at a Forward Operating Base (FOB). The FABS-M variant provides the MAGTF Commander with a tactical and portable system. The FABS-L variant provides the Marines a battery powered man-packable system.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Signature Management (SIGMAN): Product Development	2.848	13.815	6.557	0.000	6.557
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue the research and development of blue-force signature assessment, blue-force signature planning, and advanced delivery capability through ONR CRIT efforts. - Initiate YETI effort - details are held at a higher classification. ***FY 2025 Base Plans:*** - Complete the research and development of blue-force signature assessment, blue-force signature planning, and advanced delivery capability through ONR CRIT efforts. - Continue prototype development of Yeti - details are held at a higher classification. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease from FY 2024 to FY2025 reflects completion of CRIT efforts.					
Title: Signature Management (SIGMAN): Test and Evaluation	1.004	2.721	6.118	0.000	6.118
Articles:	-	-	-	-	-
FY 2024 Plans: - Conduct developmental test and evaluation of CRIT software on SIGMAN Increment III hardware baseline. ***FY 2025 Base Plans:*** - Complete developmental test and evaluation of CRIT software on SIGMAN Increment III hardware baseline. - Initiate T&E for YETI future prototyping. Details held at a higher classification. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:***					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3772 / *Information Related Capabilities (IRC)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Increase from FY 2024 to FY 2025 reflects the initiation of test and evaluation of YETI prototyping. Details held at a higher classification.					
Title: Signature management (SIGMAN): Support ***Articles:*** ***FY 2024 Plans:*** N/A ***FY 2025 Base Plans:*** - Initiate program office support for YETI including system engineering and test personnel. Details held at higher classification. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase from FY24 to FY25 reflects initiation of YETI program office support. Details held at higher classification.	0.000 -	0.000 -	1.487 -	0.000 -	1.487 -
Title: Digital Media Systems (DMS) (Formerly Public Affairs System (PAS)): Test and Evaluation ***Articles:*** ***FY 2024 Plans:*** - Continue product development/integration activities and conduct test and evaluation activities related to the Tactical Imagery Production System Next Generation (TIPS NG) providing production verification and user evaluation in support of upgrades for the COMMSTRAT Occfield. - Continue configuration management in support of DMS family of systems modernization ***FY 2025 Base Plans:*** - Continue configuration management in support of DMS family of systems modernization - Initiate research and development in support of the VIAS technology refresh planned for FY26 ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:***	0.319 -	0.308 -	0.230 -	0.000 -	0.230 -

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3772 / *Information Related Capabilities (IRC)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Decrease from FY2024 to FY2025 is due to TIPS NG moving from test and evaluation to procurement.					
Title: Military Information Support Operations (MISO): Support	0.509	0.828	0.464	0.000	0.464
Articles:	-	-	-	-	-
FY 2024 Plans: - Initiate engineering change proposal (ECP) support for the development of software and cyber upgrades for ongoing technology modernizations. - Continue Software Integration Support to compile and deploy software on the systems, create user accounts, system calibration and other activities as required. - Continue technical assistance and support for Developmental and Integration Testing in proving out use cases for security component, mission planning and capability deployment.					
FY 2025 Base Plans: - Continue engineering change proposal (ECP) support for the development of software and cyber upgrades for ongoing technology modernizations. - Continue Software Integration Support to compile and deploy software on the systems, create user accounts, system calibration and other activities as required. - Continue technical assistance and support for Developmental and Integration Testing in proving out use cases for security component, mission planning and capability deployment.					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: The decrease from FY2024 to FY2025 reflects reduction of support to subsystem and component testing efforts.					
Title: Military Information Support Operations (MISO): Test and Evaluation	0.309	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2024 Plans: N/A					
FY 2025 Base Plans: N/A					
FY 2025 OCO Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3772 / *Information Related Capabilities (IRC)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
N/A					
Accomplishments/Planned Programs Subtotals	4.989	17.672	14.856	0.000	14.856

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• PMC/4620AA: *MARCIMS*	0.307	0.000	0.313	-	0.313	0.248	0.254	0.261	0.268	Continuing	Continuing
• PMC/4620BB: *DMS (Formerly PAS)*	2.653	2.274	3.472	-	3.472	3.535	3.601	3.673	3.751	Continuing	Continuing
• PMC/4620CC: *MISO*	3.838	4.249	3.876	-	3.876	4.053	4.135	4.218	4.306	Continuing	Continuing
• PMC/4620DD: *SIGMAN*	4.393	21.856	42.000	-	42.000	42.138	23.591	23.689	24.184	Continuing	Continuing

Remarks

D. Acquisition Strategy

SIGMAN FoS is a new capability using common hardware and software systems. SIGMAN FoS will expand upon capabilities and introduce new signature assessment and management capabilities as technology updates mature with increased modularity, flexibility, and mobility. SIGMAN will conduct RDT&E efforts in conjunction with the Lead System Integrator (LSI) to facilitate the integration of advanced capabilities. SIGMAN will procure production articles through the LSI and the Army C5ISR program office. This program includes funding in support of YETI in which details are held at a higher classification level.

Digital Media Systems will leverage existing Marine Corps Programs of Record and maximize the utilization of commercial-off-the-shelf devices and software to provide best overall cost, schedule and performance solutions to the warfighter with minimal developmental cost and schedule investments.

The MISO Family of Systems (FoS), which Consists of the Fly Away Broadcast System (FABS) Marine Corps Variant (MCV) Family of Systems (FoS). The FABS MCV acquisition strategy relies on procuring the latest mature and supported GOTS and COTS/Non-Developmental Item (NDI) technology.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*	Project (Number/Name) 3772 / *Information Related Capabilities (IRC)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SIGMAN CRIT	C/CPFF	ONR : Arlington, VA	1.087	0.989	Mar 2023	1.815	Mar 2024	0.000		-		0.000	Continuing	Continuing	Continuing
SIGMAN YETI	TBD	SCO : Arlington, VA	0.000	0.000		12.000	Dec 2023	6.557	Mar 2025	-		6.557	Continuing	Continuing	Continuing
SIGMAN	MIPR	NIWC Lant : Charleston, SC	0.000	1.859	Dec 2022	0.000		0.000		-		0.000	0.000	1.859	-
MISO	WR	NIWC LANT : Charleston, SC	0.869	0.000		0.000		0.000		-		0.000	0.000	0.869	-
Cumulative Prior Year	Various	Not Specified : Not Specified	4.031	0.000		0.000		0.000		-		0.000	0.000	4.031	-
		Subtotal	5.987	2.848		13.815		6.557		-		6.557	Continuing	Continuing	N/A

Remarks

Decrease from FY 2024 to FY2025 reflects completion of CRIT efforts. Details are held at a higher classification level.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MISO	MIPR	NIWC LANT : Charleston, SC	0.000	0.509	May 2023	0.828	Dec 2023	0.464	Dec 2024	-		0.464	0.000	1.801	-
SIGMAN YETI	C/BA	NSWC CRANE : Crane, IN	0.000	0.000		0.000		1.487	Dec 2024	-		1.487	0.000	1.487	-
		Subtotal	0.000	0.509		0.828		1.951		-		1.951	0.000	3.288	N/A

Remarks

Increase from FY 2024 to FY 2025 reflects initiation of YETI program office support. Details held at higher classification.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*	Project (Number/Name) 3772 / *Information Related Capabilities (IRC)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	MIPR	SIGMAN NIWC LANT : Charleston, SC	3.834	1.004	Feb 2023	2.721	Feb 2024	1.266	Jul 2025	-		1.266	Continuing	Continuing	Continuing
Operational Test & Evaluation (OT&E)	C/BA	SIGMAN-YETI NSWC CRANE : Crane, IN	0.000	0.000		0.000		4.852	Dec 2024	-		4.852	0.000	4.852	-
Developmental Test & Evaluation (DT&E)	MIPR	DMS NIWC LANT : Charleston, SC	1.131	0.319	Mar 2023	0.308	Feb 2024	0.230	Feb 2025	-		0.230	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	MIPR	MISO-NIWC LANT : Charleston, SC	0.123	0.309	Nov 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	NAVSEA : Laurel, MD	4.606	0.000		0.000		0.000		-		0.000	0.000	4.606	-
		Subtotal	9.694	1.632		3.029		6.348		-		6.348	Continuing	Continuing	N/A

Remarks

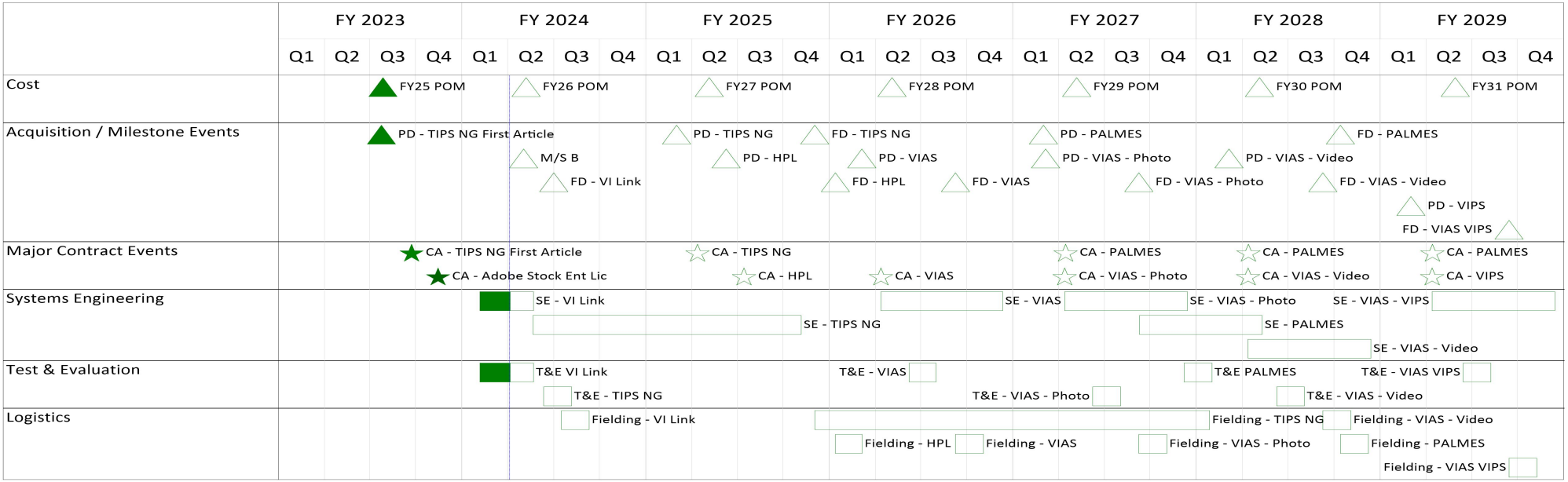
Increase from FY 2024 to FY 2025 reflects the initiation of test and evaluation of YETI prototyping. Details held at a higher classification.

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	15.681	4.989		17.672		14.856		-		14.856	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3772 / *Information Related Capabilities (IRC)*

Digital Media Systems



DMS Budget Exhibit Q2 FY23-29.mpp

Snapshot Date: 1/4/2024

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3772 / *Information Related Capabilities (IRC)*

SIGMAN Schedule

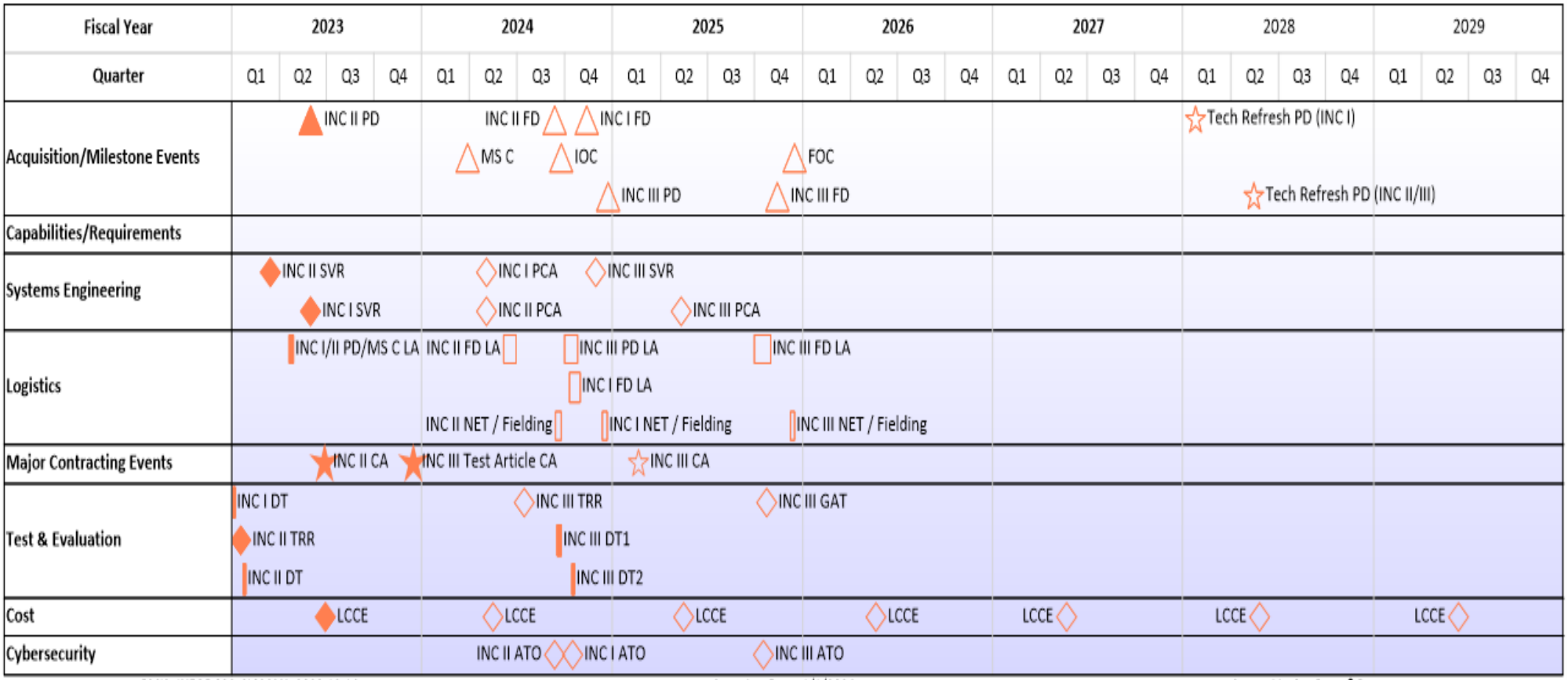


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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3772 / *Information Related Capabilities (IRC)*

MISO FABS Schedule

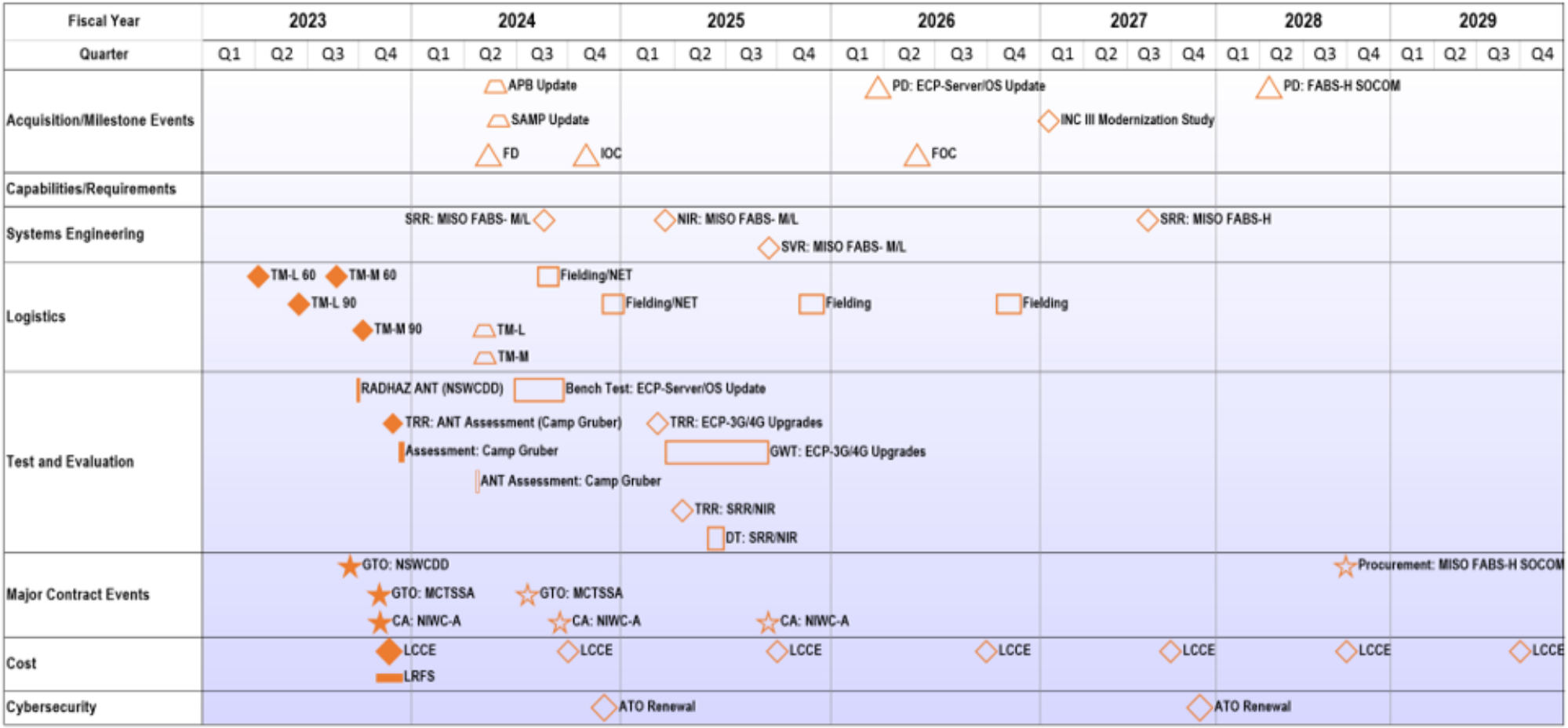

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3772 / *Information Related Capabilities (IRC)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SIGMAN				
Inc II Procurement Decision	2	2023	2	2023
MS C	1	2024	1	2024
Inc II Fielding Decision	3	2024	3	2024
Inc 1 Fielding Decision	4	2024	4	2024
Inc I Technology Refresh Procurement Decision	1	2028	1	2028
Initial Operational Capability	3	2024	3	2024
Full Operational Capability	4	2025	4	2025
Inc III Procurement Decision	4	2024	4	2024
Inc III Fielding Decision	4	2025	4	2025
Inc II/III Technology Refresh Procurement Decision	2	2028	2	2028
Inc II System Verification Review	1	2023	1	2023
Inc I Physical Configuration Audit	2	2024	2	2024
Inc III System Verification Review	4	2024	4	2024
Inc I System Verification Review	2	2023	2	2023
Inc II Physical Configuration Audit	2	2024	2	2024
Inc III Physical Configuration Audit	2	2025	2	2025
Inc I/II Procurement Decision / Milestone C Logistics Assessment	2	2023	2	2023
Inc III Procurement Decision Logistics Assessment	2	2024	2	2024
Inc III Fielding Decision Logistics Assesssment	4	2025	4	2025
Inc I Fielding Decision Logistics Assessment	4	2024	4	2024
Inc II New Equiptment Training / Fielding	3	2024	3	2024

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3772 / *Information Related Capabilities (IRC)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Inc I New Equiptment Training / Fielding	4	2024	4	2024
Inc III New Equiptment Training / Fielding	4	2025	4	2025
Inc II Contracting Award	3	2023	3	2023
Inc III Test Article Contracting Award	4	2023	4	2023
Inc III Contracting Award	1	2025	1	2025
Inc I Developmental Testing	1	2023	1	2023
Inc III Test Readiness Review	3	2024	3	2024
Inc III Government Acceptance Test	4	2025	4	2025
Inc II Test Readiness Review	1	2023	1	2023
Inc III Developmental Testing 1	3	2024	3	2024
Inc II Developmental Testing	1	2023	1	2023
Inc III Developmental Testing 2	4	2024	4	2024
Inc II Authority to Operate	3	2024	3	2024
Inc I Authority to Operate	4	2024	4	2024
Inc III Authority to Operate	4	2025	4	2025
DMS (Formerly PAS)				
VI LIink TRR	1	2023	1	2023
VI Link DT	1	2023	1	2023
VI Link TR 2	2	2024	2	2024
VI Link FCA/SVR	2	2025	2	2025
T&E TIPS Next Gen	2	2024	2	2024
TIPS NG First Article Contract	3	2023	3	2023
MISO FABS				
Aquisition Program Baseline Update	2	2024	2	2024
Procurement Decision: Engineering Change Proposal - Server/Operating System Update	2	2026	2	2026

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3772 / *Information Related Capabilities (IRC)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Procurement Decision: FABS-H SOCOM	2	2028	2	2028
Single Aquisition Management Plan Update	2	2024	2	2024
Inc III Modernization Study	1	2027	1	2027
Fielding Decision	2	2024	2	2024
Initial Operational Capability	4	2024	4	2024
Full Operational Capability	2	2026	2	2026
System Readiness Review: MISO FABS- M/L	3	2024	3	2024
Non-developmental Item Integration Review: MISO FABS - M/L	2	2025	2	2025
System Readiness Review: MISO FABS- H	3	2027	3	2027
System Verification Review: MISO FABS- M/L	3	2025	3	2025
Technical Manual - Light 60	2	2023	2	2023
Technical Manual - Medium 60	3	2023	3	2023
Fielding / New Equipment Training	3	2024	3	2024
Technical Manual - Light 90	3	2023	3	2023
Fielding / New Equipment Training Continued	4	2024	4	2024
Fielding	4	2025	4	2025
Fielding Continued	4	2026	4	2026
Technical Manual- Medium 90	4	2023	4	2023
Technical Manual- Light	2	2024	2	2024
Technical Manual- Medium	2	2024	2	2024
Radiation Hazard Antenna (NSWCDD)	3	2023	3	2023
Bench Test: Engineering Change Proposal- Server OS Update	2	2024	4	2024
Test Readiness Review: Antenna Assessment (Camp Gruber)	4	2023	4	2023
Test Readiness Review: Engineering Change Proposal - 3G/4G Upgrades	2	2025	2	2025
Assessment: Camp Gruber	4	2023	4	2023

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3772 / *Information Related Capabilities (IRC)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Governement Witness Testing: Engineering Change Proposal - 3G/4G Upgrades	1	2025	3	2025
Antenna Assessment: Camp Gruber	2	2024	2	2024
Test Readiness Review: System Requirements Review / Non-developmental Item Integration Review	2	2025	2	2025
Developmental Testing: System Requirements Review / Non-developmental Item Integration Review	3	2025	3	2025
Contracting Award: NIWC-A FY23	4	2023	4	2023
Procurement: MISO FABS-Heavy SOCOM	3	2028	3	2028
Contracting Award: NIWC-A FY24	3	2024	3	2024
Contracting Award: NIWC-A FY25	3	2025	3	2025
Authority to Operate Renewal	4	2024	4	2024
Authority to Operate Renewal FY27	4	2027	4	2027

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*				Project (Number/Name) 3773 / *Fire Coordination and Sensors*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
3773: *Fire Coordination and Sensors*	26.073	8.259	8.970	6.428	-	6.428	10.517	10.153	9.303	9.498	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project 3773 Fire Coordination and Sensors funds the development of critical United States Marine Corps (USMC) fire support coordination, targeting, and digital interoperability systems required for the employment of air and ground fires. Fire Coordination and Sensors provides the systems needed to develop and integrate a digital networked sensor to shooter mission thread supporting the Marine Air-Ground Task Force (MAGTF). Key systems included are:

Family of Target Acquisition Systems (FTAS) - The FTAS provides the MAGTF the capability to locate, identify and attack enemy indirect fire weapons systems, and observe and direct friendly artillery fire. The FTAS consists of the AN/TPQ-46B Firefinder radar, the AN/TPQ-54(V)1 Lightweight Counter Mortar Radar Mobile (LCMR), the AN/TPQ-49(A) Lightweight Counter Mortar Radar - Technical Refresh (LCMR-TR), and the Ground Counter Fire Sensor-Replacement (GCFS-R) Scalable Passive Acoustic Reporting and Targeting Node (SPARTN). The FTAS is critical in the execution of counterfire and the integration of target acquisition information enabling attack by MAGTF assets. The FTAS also provides artillery firing units the ability to conduct artillery registration and other friendly fire missions. The FTAS encompasses the equipment required to support target acquisition within the target acquisition platoon and is resident in the headquarters battery of each artillery regiment. The program will initiate development of replacement sensor systems and continue to address system issues that arise due to Diminishing Manufacturing Sources and Material Shortages (DMSMS) items with the FTAS.

Advanced Field Artillery Tactical Data System (AFATDS) Family of Systems (FoS) - The AFATDS FoS consists of two programs: AFATDS, and Mobile Shelters consisting of the Mobile Tactical Shelter (MTS), Target Processing Set (TPS), and the Mobile Command Vehicle (MCV) Shelter. AFATDS integrates all supporting arms assets within the MAGTF, such as mortars, cannon artillery, rockets and missiles, close air support, and naval surface fires support systems. AFATDS automates fire planning, tactical and technical fire direction, and fire support coordination. AFATDS facilitates the employment of USMC and Joint fires capabilities for operations ashore, sea control, sea denial, and other USMC/Joint fires requirements. In FY 2021 the decision was made to transition from the High Mobility Multipurpose Wheeled Vehicle mounted MTS and TPS to the JLTV mounted MCV Shelter for the increased AAO due to Force Design 2030. The MCV Shelter is primarily dedicated to housing the AFATDS and other fire support systems. MCV Shelters enhance the capabilities and survivability of USMC fire support units by enabling rapid emplacements, displacements, and by supporting command, control, and communications on the move.

AFATDS decrease from FY 2024 to FY 2025 is attributed to the completion of AFATDS v6.8.1.4 SW development to support Marine Corps-specific GBASM requirements.

Target Hand-Off System (THS) - The THS addressed a Marine Corps operational requirement for a lightweight, handheld, and accurate target acquisition engagement coordination system. THS provides MAGTF Commanders with the only man-portable target location and video downlink capability that allows Air Officers and Fire Support Coordinators to prosecute identified targets. The THS' advance interoperability capability provides the MAGTF Commander with the only portable target

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
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acquisition system able to interoperate with all target prosecution platforms available on the battlefield. The THS is designed for the Forward Air Controllers (FACs), Forward Observers (FOs), Fire Support Teams (FSTs), Firepower Control Teams (FCTs), Tactical Air Control Parties (TACPs) and Reconnaissance Teams to quickly acquire targets in day, night and near-all-weather visibility conditions, in order to conduct precise, rapid indirect surface fire support, Naval Surface Fire Support (NSFS) and Close Air Support (CAS).

THS Operational Test - Decrease from FY 2024 to FY 2025 is due to completion of the implementation and testing of the Variable Message Format (VMF) Standard 6017E within the THSv2 software.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: FTAS	1.061	1.749	1.658	0.000	1.658
Articles:	-	-	-	-	-
FY 2024 Plans: - Continued conducting test and evaluation of software patches for the suite of FTAS equipment - Continued the development of the LCMR replacement - Continued the development of Engineering Change Proposals (ECPs) to address DMSMS issues					
FY 2025 Base Plans: - Continue conducting test and evaluation of software patches for the suite of FTAS equipment - Continue the development of Engineering Change Proposals (ECPs) to address DMSMS issues - Continue the development of the LCMR replacement					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 is due a decrease in cost associated with ECPs to address DMSMS issues.					
Title: AFATDS	5.539	6.786	4.685	0.000	4.685
Articles:	-	-	-	-	-
FY 2024 Plans: - Completed AFATDS software version 6.8.1.3. - Continued AFATDS version 6.8.1.4 software development. - Conducted test and evaluation support for AFATDS software version 6.8.1.4. - Begin AFATDS version 6.8.1.5 software development. - Continued AFATDS Software Modernization/Development with DEVCOM AC (previously 7.0)					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3773 / *Fire Coordination and Sensors*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Developed training material and conduct NET for AFATDS version 6.8.1.3. ***FY 2025 Base Plans:*** - Complete AFATDS version 6.8.1.4. - Develop training materials and conduct NET for AFATDS version 6.8.1.4. - Field AFATDS version 6.8.1.4. - Continue AFATDS version 6.8.1.5 software development. - Conducted test and evaluation support for AFATDS software version 6.8.1.5. - Continued AFATDS Software Modernization/Development with DEVCOM AC (previously 7.0). ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The decrease from FY 2024 to FY 2025 is a result of the conclusion of AFATDS v6.8.1.4 SW development to support Marine Corps-specific GBASM requirements.					
Title: THS	1.659	0.435	0.085	0.000	0.085
Articles:	-	-	-	-	-
FY 2024 Plans: - Continued the implementation and testing of the Variable Message Format (VMF) Standard 6017E within the THSv2 software. ***FY 2025 Base Plans:*** - Complete the implementation and testing of the Variable Message Format (VMF) Standard 6017E within the THSv2 software. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease from FY 2024 to FY 2025 is due to completion of the implementation and testing of the Variable Message Format (VMF) Standard 6017E within the THSv2 software.					
Accomplishments/Planned Programs Subtotals	8.259	8.970	6.428	0.000	6.428

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3773 / *Fire Coordination and Sensors*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• PMC/4733: *Fire Support System*	36.492	58.483	56.710	-	56.710	97.642	64.799	56.994	63.277	0.000	909.757

Remarks

D. Acquisition Strategy

Family of Target Acquisition Systems (FTAS): FTAS consists of 3 major components: AN/TPQ-46 Firefinder Radar AN/TPQ-49 Lightweight Counter Mortar Radar (LCMR), the AN/TPQ-49(A) Lightweight Counter Mortar Radar - Technical Refresh (LCMR-TR), and the Ground Counter Fire Sensor-Replacement (GCFS-R) Scalable Passive Acoustic Reporting and Targeting Node (SPARTN). The replacement of the AN/TPQ-46 by the Ground/Air Task Oriented Radar (G/ATOR) began in 2018. AN/TPQ-46 activities since 2020 limited to maintaining the authority to operate (ATO) accreditation and supporting remaining systems.

Advance Field Artillery Tactical Data System (AFATDS): AFATD software is managed through the Army Futures Command, Fire Support Command and Control, Aberdeen Proving Ground MD. R&D efforts for the AFATDS modernization/development will be a combined effort between the software developer, the Army PM, and the USMC for software through the Defense Information Systems Agency (DISA). Software enhancements are performed by the U.S. Army, Fort Sill, OK for v6.8.X.X and DEVCOM AC/future performer TBD for software modernization.

Target Hand-Off System (THS): The acquisition of components (software/hardware) for the THS initiative will maximize the use of existing Commercial-Off-the-Shelf (COTS), Government-Off-the-Shelf (GOTS), Non-Developmental Item (NDI), and Government Furnished Equipment (GFE). Software must maintain compatibility with seven Programs of Record (POR) and seven Operational Flight Programs (OFP). Equipment is purchased from multiple vendors with Space and Missile Defense Command (SMDC) acting as the lead integrator for the USMC.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3773 / *Fire Coordination and Sensors*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FTAS: LCMR Replacement Development	C/BA	NSWC : Dahlgren, VA	0.000	0.000		0.379	Nov 2023	0.495	Nov 2024	-		0.495	0.000	0.874	-
FTAS: ECP Kit Development	MIPR	TYAD : Tobyhanna, PA	0.606	0.052	Jan 2023	0.300	Dec 2023	0.205	Dec 2024	-		0.205	0.000	1.163	-
FTAS: Radar Position Analysis System (RPAS) Development	C/FFP	CECOM : Ft Sill, OK	0.000	0.346	Feb 2023	0.000		0.000		-		0.000	0.000	0.346	-
THS	MIPR	NAWC : China Lake	0.405	0.816	Nov 2022	0.000		0.000		-		0.000	0.000	1.221	-
AFATDS 6.8.1.4 SW Dev	C/FFP	CECOM/MITRE : Aberdeen, MD	5.495	2.282	Dec 2022	2.211	Dec 2023	0.819	Dec 2024	-		0.819	0.000	10.807	-
AFATDS 6.8.1.4 SW Dev	MIPR	NIWC/LANT : Charleston, SC	0.000	0.924	Jan 2023	1.110	Aug 2024	0.000		-		0.000	0.000	2.034	-
AFATDS 6.8.1.5 SW Dev	C/BA	CECOM/MITRE : Aberdeen, MD	0.000	0.000		1.529	Dec 2023	1.637	Dec 2024	-		1.637	0.000	3.166	-
AFATDS Modernization	C/CPFF	DEVCOM : Picatinny Arsenal, NJ	0.000	0.000		0.000	Mar 2024	0.300	Dec 2024	-		0.300	Continuing	Continuing	Continuing
AFATDS IV&V	MIPR	GSA : Philadelphia, PA	0.385	0.448	Jun 2023	0.526	Jan 2024	0.494	Jan 2025	-		0.494	0.000	1.853	-
AFATDS Human Factors Engineering	MIPR	NSWC : Dahlgren, VA	0.103	0.108	Feb 2023	0.000		0.000		-		0.000	0.000	0.211	-
All Prior Year Cumulative Funds	Various	Various : Various	15.710	0.000		0.000		0.000		-		0.000	0.000	15.710	-
		Subtotal	22.704	4.976		6.055		3.950		-		3.950	Continuing	Continuing	N/A

Remarks

Overall decrease from FY 2024 to FY 2025 is attributed to the completion of AFATDS v6.8.1.4 SW development to support Marine Corps-specific GBASM requirements.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*	Project (Number/Name) 3773 / *Fire Coordination and Sensors*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FTAS: Engineering Support	WR	NSWCDD : Dahlgren, VA	1.564	0.341	Nov 2022	0.484	Nov 2023	0.395	Nov 2024	-		0.395	0.000	2.784	-
FTAS: Test and Evaluation Support	C/FFP	MCTSSA : Camp Pendleton, CA	0.165	0.174	Apr 2023	0.276	Mar 2024	0.242	Mar 2025	-		0.242	0.000	0.857	-
		Subtotal	1.729	0.515		0.760		0.637		-		0.637	0.000	3.641	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	C/FFP	various (AFATDS) : various	0.424	1.778	Apr 2023	1.410	Mar 2024	1.435	Mar 2025	-		1.435	0.000	5.047	-
Operational Test & Evaluation (OT&E)	MIPR	Various (THS) : various	0.000	0.842	Jan 2023	0.435	Jan 2024	0.085	Dec 2024	-		0.085	0.000	1.362	-
		Subtotal	0.424	2.620		1.845		1.520		-		1.520	0.000	6.409	N/A

Remarks

THS Operational Test - Decrease from FY 2024 to FY 2025 is due to completion of the implementation and testing of the Variable Message Format (VMF) Standard 6017E within the THSv2 software.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FTAS	C/CPFF	CECOM/MITRE : Ft. Monmouth, NJ	1.216	0.148	Nov 2022	0.310	Dec 2023	0.321	Dec 2024	-		0.321	0.000	1.995	-
		Subtotal	1.216	0.148		0.310		0.321		-		0.321	0.000	1.995	N/A

	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	26.073	8.259		8.970		6.428		-		6.428	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0206313M / *Marine Corps Comms Systems*	Project (Number/Name) 3773 / *Fire Coordination and Sensors*	

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3773 / *Fire Coordination and Sensors*

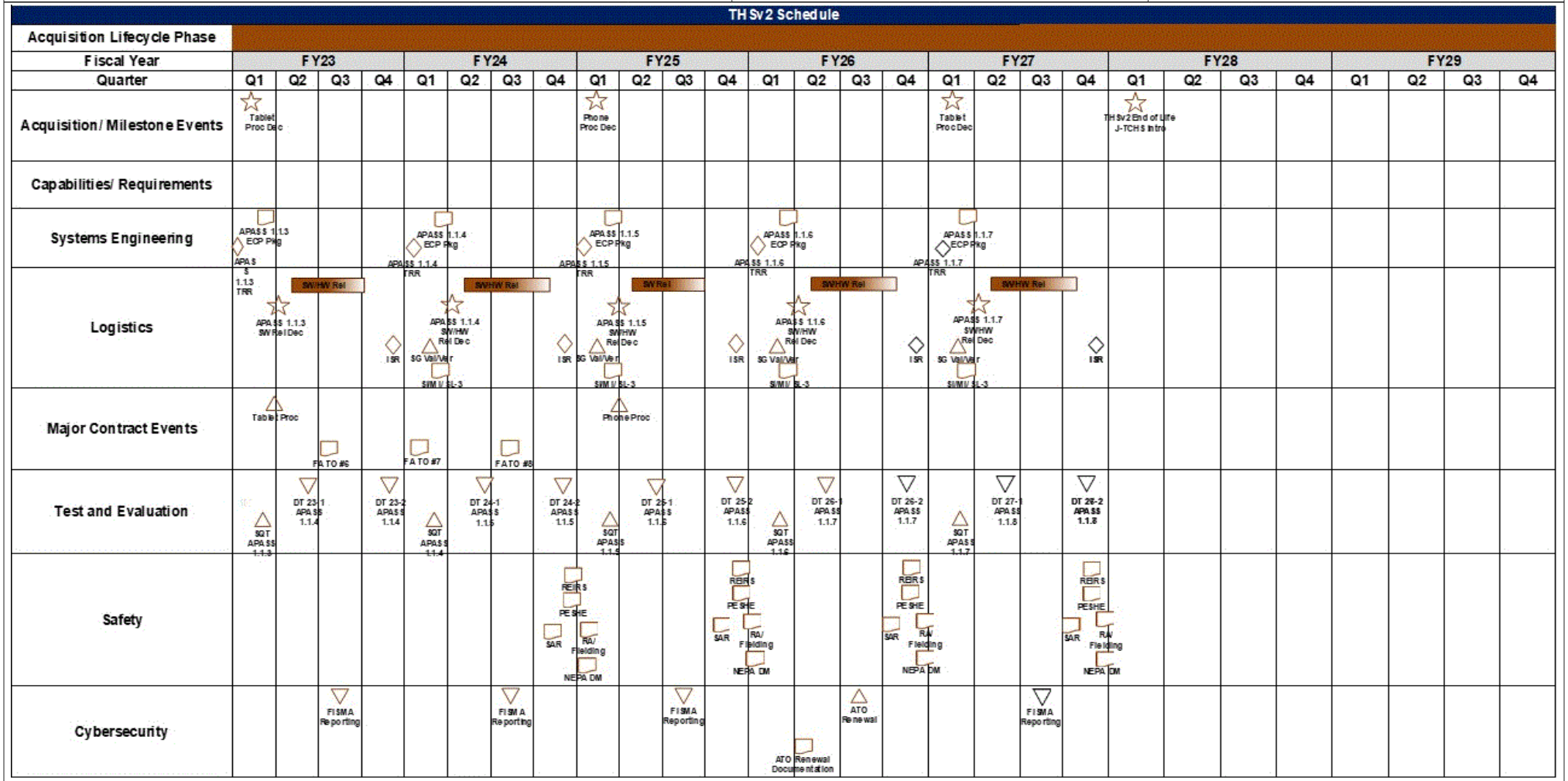

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3773 / *Fire Coordination and Sensors*

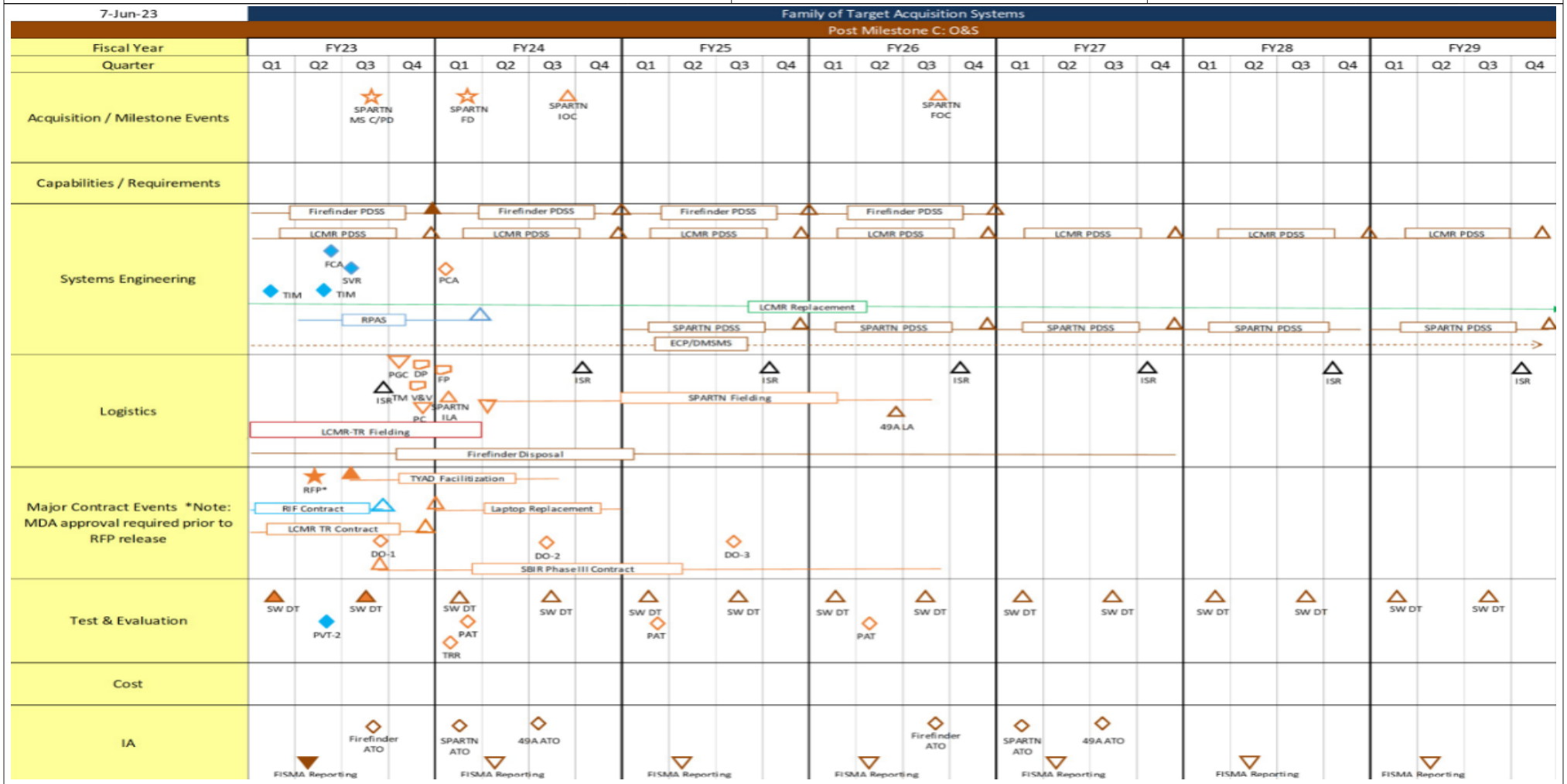

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3773 / *Fire Coordination and Sensors*

AFATDS Schedule

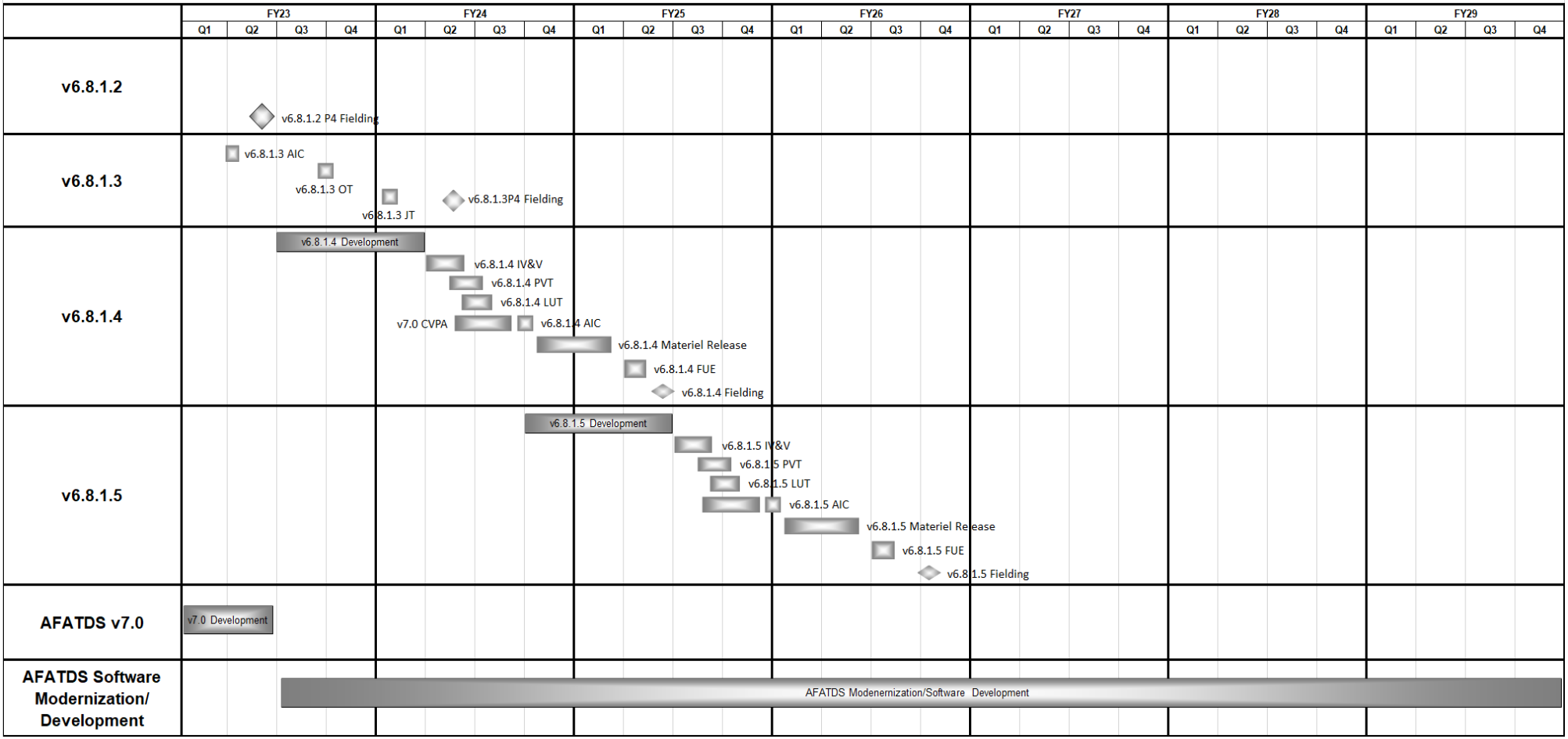

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0206313M / *Marine Corps Comms Systems*	**Project (Number/Name)** 3773 / *Fire Coordination and Sensors*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3773				
AFATDS 6.8.1.4	3	2023	2	2025
AFATDS 6.8.1.5	4	2024	4	2026
AFATDS Software Modernization	3	2023	4	2029
FTAS: ECP Kit Development	1	2023	4	2029
FTAS: Software Patch Evaluation	1	2023	4	2029
THS: Software Test Support	1	2023	1	2029