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

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605013M / <i>Marine Corps IT Dev/Mod</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	114.559	1.448	0.974	11.277	-	11.277	-	-	-	-	-	-
2906: <i>Marine Corps IT</i>	114.559	1.448	0.974	7.098	-	7.098	-	-	-	-	-	-
9406: <i>Maintenance Data Warehouse</i>	0.000	0.000	0.000	4.179	-	4.179	-	-	-	-	-	-

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

This program establishes, sustains, and continuously refines computing platforms and Information Technology (IT) services as tested, certified and reusable components of a Marine Corps IT framework that spans the range of military and garrison operations.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Previous President's Budget	1.494	0.974	1.441	-	1.441
Current President's Budget	1.448	0.974	11.277	-	11.277
Total Adjustments	-0.046	0.000	9.836	-	9.836
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.012	0.000			
• SBIR/STTR Transfer	-0.058	0.000			
• Program Adjustments	0.000	0.000	6.399	-	6.399
• Rate/Misc Adjustments	0.000	0.000	3.437	-	3.437

**Change Summary Explanation**

The net increase of \$10.303M from FY 2021 to FY 2022 is primarily due to the following program adjustments within the PE:

1) Marine Corps IT increases \$6.124M from FY 2021 to FY 2022 for continued development and deployment of the Command Individual Risk and Resiliency Assessment System (CIRRAS) version 1.1, which provides the Marine Corps new enterprise level force preservation capabilities, helping Commanders and their staffs in making more timely and informed decisions on force preservation risk assessments of service member behaviors that are associated with increased risk or resiliency to assist in suicide prevention. Additional increase due to the establishment of the Strategic Management Decision Support (SMDS) program, which provides data integration, data management, and decision-support services for Marine Corps force design and development, force management, and force resourcing processes.

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<p>2) Maintenance Data Warehouse increases \$4.179M from FY 2021 to FY 2022 due to Aviation Logistics Environment (ALE) requirements to enable alignment with the planned retirement of legacy systems and integration with other modernization efforts.</p> <p>The FY 2022 funding request was adjusted by \$0.465M to account for the availability of prior year execution balances.</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Navy										<b>Date:</b> May 2021		
<b>Appropriation/Budget Activity</b> 1319 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605013M / <i>Marine Corps IT Dev/Mod</i>				<b>Project (Number/Name)</b> 2906 / <i>Marine Corps IT</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2906: <i>Marine Corps IT</i>	114.559	1.448	0.974	7.098	-	7.098	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-	-	-

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

Manpower Operations Systems (MOS) is a portfolio of enterprise IT systems and modules that support manpower business operations for the Total Force (active and reserve). The investment in the portfolio improves dataflow and increases reliability, functionality, and accuracy of data while reducing the manpower required to operate and maintain these systems/operations. Development is partially driven by regulatory and policy changes mandated by Congress, DOD, Department of the Navy (DON), and United States Marine Corps (USMC). These systems support all five tiers of Manpower: 1) Individual Marine, 2) Small Unit Leader, 3) Unit, 4) Installation Personnel Administration Center (IPAC)/Disbursing Echelon, and 5) Headquarters Marine Corps (HQMC) Manpower and Reserve Affairs (M&RA)/Defense Finance and Accounting Service. The MOS portfolio provides support in functional areas such as permanent change of station assignments, retention, mobilization, manpower planning, line of duty determination, personnel accountability, individual augmentation, personnel records management and maintenance, management of case incidents, civilian professional development planning, pay entitlement determinations, promotion and performance evaluations and self-service/visibility of personnel data. MOS programs interface with other systems to provide manpower data and web services functionality for pay and personnel transactions between systems. Systems in the portfolio include the Web-enabled Manpower Assignment Support System (WebMASS), Automated Performance Evaluation System (APES), Total Force Retention System (TFRS), Optical Digital Imaging - Records Management System (ODI-RMS), Marine Corps Force Augmentation System (MCFAPS), Secure Personnel Accountability (SPA) and the Requirements, Transition and Manpower Management System (RTAMMS). The current systems have become obsolete and are unable to maintain an acceptable Cyber Security posture. Modernization efforts will involve business process and application reengineering, with a focus on redefining the Human Resource Development Process (HRDP) to deliver a portfolio of streamlined capabilities on a modern and secure platform.

Marine Corps Recruiting Information Support System (MCRISS) is an enterprise level system to automate administrative procedures for the recruiting station operations. This customized automated System, centered on procedures in the Guidebook for Recruiters, Volume I, dramatically improves efficiency and effectiveness in Marine Corps recruiting. Furthermore, Military Entrance Processing Command requires Marine Corps recruiting to provide information in electronic format only. MCRISS is the Marine Corps Recruiting Command's program to manage applicant processing from commitment to accession/commission into the Marine Corps and Marine Corps Reserve. This enterprise approach allows for efficient sharing of information about potential recruits and recruiter screening efforts, yielding a more cost effective process. The current system requires modernization of the systematic recruiting components to provide efficiency for the Recruiting force from the Headquarters element down to the Recruiter, and requires numerous updates in order to become fully compliant with Cyber Security and Center for Naval Analysis (CNA) policies and mandates to protect PII/PHI data captured and stored in the system. The Modernization effort will involve a competitive evaluation of several prototype systems, leading to a selection of a viable platform and the complete replacement of the current MCRISS system with modern and secure technology.

Paperless Office/Acquisition (PA) funding supports development and enhancement of Purchase Request (PR) Builder, which is the Marine Corps enterprise solution for the electronic generation of purchase requests, funding documents, miscellaneous payments, and serves as the front-end system for feeding the DOD enterprise contracting writing system Standard Procurement System (SPS). PR Builder is a fully web-based, Mission Assurance Category (MAC) III sensitive business system that provides the Marine Corps with a net-centric capability to electronically create, route for approval, and apply funding to Purchase Requests (PRs), Funding Documents, and Miscellaneous Payments. PR Builder is the authoritative procurement generation system within the Marine Corps electronic Paperless Acquisition (PA) Systems

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<p>Business Enterprise that provides system-to-system interaction with the Marine Corps' Standard Procurement System (SPS)/Procurement Desktop Defense (PD2, Department of Defense (DoD) Standard Accounting, Budgeting, and Reporting System (SABRS), Electronic Document Access (EDA). These systems are critical to Marine Corps purchasing, contracting and procurement tracking control.</p> <p>Technology Services Organization (TSO): This Technical refresh/upgrade of Standard Accounting Budgeting Reporting System (SABRS) database technology from ADABAS to a newer database architecture provides a modern and well-supported database technology that ultimately enables the normalization of Marine Corps financial data in a true relational database. The newer database architecture will provide a modern data platform to support transactional operations within the DON General Fund accounting systems to optimize performance, readily scale, and reliably support data structure, quality, and availability for subsequent analysis to drive decision making. Successful implementation will be transparent to the SABRS user community while minimizing the potential for unanticipated system degradation/outages and secure the system's operational longevity. This Multi-phased project (over 4 years), system supports 5k+ direct users, impacts entire DON General Funds accounting. Out year costs will be assumed into planned sustainment of SABRS.</p> <p>The current configuration is antiquated with diminishing industry support. There is a limited pool of applicants available to work on ADABAS. Sustainment is cost prohibitive and the technology stack limits flexibility to fully support 21st century data/system requirements. TSO will be unable to mitigate identified technical and support risk associated with current technology which could result in systems degradation and/or outage. This further leaves TSO unable to improve data integrity and audit compliance in SABRS by employing a more modern database. The impact on the operational capability is the risk to DON accounting and Financial Management operations increases daily for major system degradation or outage in both likelihood of occurrence and extent of the negative impact of such an occurrence. This will result in the system becoming less and less viable to the point where it will no longer support Marine Corps operations.</p> <p>Strategic Management Decision Support (SMDS): This is a new start program in FY 2022 that is required to meet the Marine Corps capability needs for high quality data and effective assessment of capability needs and risks to force, mission, and institution. The SMDS program will establish a set of materiel and non-materiel solutions to facilitate data-driven and analytically sound decision support for Marine Corps strategic-level business processes, in order to optimize force development outcomes and improve institutional readiness. Supported business processes include global force management, readiness assessment, wargaming, planning, programming, budgeting, and capability solution development. The program includes developing an integrated enterprise decision support solution with materiel and non-materiel components, and development and sustainment of related operational and developmental projects that support design and provide interim solutions. Program components include data quality improvement and business process reengineering; data integration and data management services to aggregate enterprise data and make it available/usable for decision support; procurement of hardware, software, and services, to include analytic and visualization applications; and development of inference and decision models to facilitate analysis and decision support specific to each business process.</p> <p>Command Individual Risk and Resiliency Assessment System (CIRRAS), operationally deployed in September 2020, enables the United States Marine Corps (USMC) commanding officers and senior enlisted advisors to make more informed and timely decisions on Force Preservation (FP) risk assessments, based on identifying and tracking individual Service Member (SM) behaviors associated with increased risk or resiliency as defined by the Marine Corps "Six Fs" (Fidelity, Fighter, Fitness, Family, Finances, and Future). CIRRAS is the Marine Corps Force Preservation Council (FPC) enterprise-wide system to manage individual SM FP risk by providing a consistent approach and a standardized methodology to support protective factors and mitigate adverse outcomes. Current efforts are to deploy additional FP functionality to increase the ability to perform, inform, and record behavioral Service Member risk assessment within the Marine Corps with the development of Version 1.1. The enhanced CIRRAS Version 1.1 capabilities being developed will automate resiliency scores, send automated alerts to leadership of "at risk" personnel, and implement additional system interfaces that will provide further key FP indicator data to assist in prevention of SM suicide.</p>		

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<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013M / Marine Corps IT Dev/Mod	<b>Project (Number/Name)</b> 2906 / Marine Corps IT

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
<p><b>Title:</b> MANPOWER OPERATIONS SYSTEMS (MOS)</p> <p align="right"><b>Articles:</b></p> <p><b>FY 2021 Plans:</b> Develop a modernized IT solution to consolidate and replace legacy Marine Corps Human Resource Development Process (HRDP) systems, workflows and business processes to deliver increasing value to the customer/user base and the Marine Corps.</p> <p><b>FY 2022 Base Plans:</b> N/A</p> <p><b>FY 2022 OCO Plans:</b> N/A</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Decrease of \$0.116M from FY 2021 to FY 2022 is due to the completion of HRDP development efforts in FY 2021.</p>	0.000	0.116	0.000	0.000	0.000
	-	-	-	-	-
<p><b>Title:</b> MARINE CORPS RECRUITING INFORMATION SUPPORT SYSTEM (MCRISS)</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> The effort will support the modernization of MCRISS. The current system requires modernization of the systematic recruiting components to provide efficiency for the Recruiting force from the Headquarters element down to the Recruiter, and requires numerous updates in order to become fully compliant with Cyber Security and CNA policies and mandates to protect PII/PHI data captured and stored in the system. The modernization effort will involve a competitive evaluation of several prototype systems, leading to a selection of a viable platform and the complete replacement of the current MCRISS system with modern and secure technology.</p> <p><b>FY 2021 Plans:</b> Continue ECP Development of new interfaces to align with modernized accessions systems within the USMC.</p> <p><b>FY 2022 Base Plans:</b> Continue ECP Development of new interfaces to align with modernized accessions systems within the USMC.</p> <p><b>FY 2022 OCO Plans:</b> N/A</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b></p>	0.000	0.163	0.000	0.000	0.000
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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
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Decrease of \$0.163M from FY 2021 to FY 2022 is due to the interface development originating in FY 2021 will carry into FY 2022, therefore, the funds are not required in FY 2022.

<b>Title:</b> STRATEGIC MANAGEMENT DECISION SUPPORT (SMDS)	0.000	0.000	2.500	0.000	2.500
<b>Articles:</b>	-	-	-	-	-

**Description:** Strategic Management Decision Support (SMDS): This is a new start program in FY 2022 that is required to meet the Marine Corps capability needs for high quality data and effective assessment of capability needs and risks to force, mission, and institution. The SMDS program will establish a set of materiel and non-materiel solutions to facilitate data-driven and analytically sound decision support for Marine Corps strategic-level business processes, in order to optimize force development outcomes and improve institutional readiness. Supported business processes include global force management, readiness assessment, wargaming, planning, programming, budgeting, and capability solution development. The program includes developing an integrated enterprise decision support solution with materiel and non-materiel components, and development and sustainment of related operational and developmental projects that support design and provide interim solutions. Program components include data quality improvement and business process reengineering; data integration and data management services to aggregate enterprise data and make it available/usable for decision support; procurement of hardware, software, and services, to include analytic and visualization applications; and development of inference and decision models to facilitate analysis and decision support specific to each business process.

**FY 2021 Plans:**  
N/A

**FY 2022 Base Plans:**  
Funding is required in FY 2022 for the establishment of the Strategic Management Decision Support (SMDS) program, which will provide data integration, data management, and decision-support services for Marine Corps force design and development, force management, and force resourcing processes.

**FY 2022 OCO Plans:**  
N/A

**FY 2021 to FY 2022 Increase/Decrease Statement:**

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<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013M / Marine Corps IT Dev/Mod	<b>Project (Number/Name)</b> 2906 / Marine Corps IT
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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
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Increase of \$2.500M from FY 2021 to FY 2022 is due to the establishment of the Strategic Management Decision Support (SMDS) program, which will provide data integration, data management, and decision-support services for Marine Corps force design and development, force management, and force resourcing processes.

<b>Title:</b> COMMAND INDIVIDUAL RISK AND RESILIENCY ASSESSMENT SYSTEM (CIRRAS)	1.448	0.000	4.000	0.000	4.000
<b>Articles:</b>	-	-	-	-	-

**FY 2021 Plans:**  
Available FY 2020 funding will start the development of CIRRAS Version 1.1 during FY 2021, as requested by the Deputy Commandant, Manpower & Reserve Affairs in September 2020.

**FY 2022 Base Plans:**  
Funding in FY 2022 will continue development for CIRRAS Version 1.1 for automation regarding resiliency factors and notification to Commanders. Additional capabilities include the incorporation of additional interfaces, trend reporting, and additional access roles with robust permissions.

**FY 2022 OCO Plans:**  
N/A

**FY 2021 to FY 2022 Increase/Decrease Statement:**  
CIRRAS funding increases from FY 2021 to FY 2022 are for continued development and deployment of version 1.1, which will provide the Marine Corps new enterprise level force preservation capabilities, helping Commanders and their staffs in making more timely and informed decisions on force preservation risk assessments of service member behaviors that are associated with increased risk or resiliency to assist in suicide prevention.

<b>Title:</b> PAPERLESS ACQUISITION (PA)	0.000	0.484	0.000	0.000	0.000
<b>Articles:</b>	-	-	-	-	-

**FY 2021 Plans:**  
-Continue the research, development, and testing of PR Builder capability/interface to interact with the new ePS capability to replace the current SPS. Initiate the research, development ,and testing of PR Builder capability/ interface with the Navy Enterprise Resource Planning (ERP) program.

**FY 2022 Base Plans:**

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Navy			<b>Date:</b> May 2021			
<b>Appropriation/Budget Activity</b> 1319 / 5		<b>R-1 Program Element (Number/Name)</b> PE 0605013M / <i>Marine Corps IT Dev/Mod</i>		<b>Project (Number/Name)</b> 2906 / <i>Marine Corps IT</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>						
-Complete the research, development, and testing of PR Builder capability/interface to interact with the new ePS capability to replace the current SPS. Initiate the research, development ,and testing of PR Builder capability/ interface with the Navy Enterprise Resource Planning (ERP) program.						
<b>FY 2022 OCO Plans:</b> N/A						
<b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Decrease of \$0.484M from FY 2021 to FY 2022 is due to the sun setting of the Standard Procurement System (SPS).						
<b>Title:</b> TECHNOLOGY SERVICES ORGANIZATION (TSO)						
<b>Articles:</b>						
		0.000	0.211	0.598	0.000	0.598
		-	-	-	-	-
<b>FY 2021 Plans:</b> - Continue research and development of the most efficient approach for transitioning the DON General Fund Accounting System, SABRS, to a modern data platform.						
- Continue development efforts in support of Manpower Personnel Administration (MPA) Modernization of applications.						
<b>FY 2022 Base Plans:</b> - Continue research and development of the most efficient approach for transitioning the DON General Fund Accounting System, SABRS, to a modern data platform.						
- Continue development efforts in support of Manpower Personnel Administration (MPA) Modernization of applications.						
<b>FY 2022 OCO Plans:</b> N/A						
<b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Increase of \$0.387M from FY 2021 to FY 2022 is due to continued development efforts in support of Manpower Personnel Administration (MPA) Modernization of applications.						
<b>Accomplishments/Planned Programs Subtotals</b>		1.448	0.974	7.098	0.000	7.098

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<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013M / <i>Marine Corps IT Dev/Mod</i>	<b>Project (Number/Name)</b> 2906 / <i>Marine Corps IT</i>
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**C. Other Program Funding Summary (\$ in Millions)**

Line Item	FY 2020	FY 2021	FY 2022	FY 2022	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Cost To	
			Base	OCO	Total					Complete	Total Cost
• PMC/4630 - MCRISS: <i>MC Recruiting Info Support System</i>	0.050	0.058	0.077	-	0.077	-	-	-	-	-	-
• PMC/4630 - PA: <i>Paperless Office/Acquisition</i>	0.127	0.130	0.132	-	0.132	-	-	-	-	-	-
• PMC/4630 - SMDS: <i>Strategic Management Decision Support</i>	0.000	0.000	0.000	-	0.000	-	-	-	-	-	-
• PMC/4630 - TSO: <i>Technology Services Organization (TSO)</i>	0.891	3.909	1.398	-	1.398	-	-	-	-	-	-

**Remarks**

**D. Acquisition Strategy**

Manpower Operations Systems (MOS) within this portfolio follows an Evolutionary Acquisition (EA) approach: 1. Define, develop, and deliver an initial or "core" capability based on mature technology. 2. "Core" capability will be incrementally improved over an extended period of time. Incremental Development Model: 1. Iterative cycles of requirements definition, design, build and evaluation. The contracting strategy across the portfolio is to utilize competitive firm-fixed price contracts.

Paperless Acquisition (PA) will use an incremental development methodology utilizing short development periods. The contracting strategy is to use a firm-fixed price contract to reduce risk to government, with additional capabilities defined by a Marine Corps Configuration Control Board and delivered to the service integrator as a modification to the contract. The delivery of small functional capabilities allows for measurable enhancements to the base system while keeping Post Deployment System Support costs relatively low.

Marine Corps Recruiting Information Support System (MCRISS) Modernization utilizes an agile software development approach to allow for continued development. MCRISS Modernization leverages a direct-award contract to a qualified 8(a) small business partner. Contracting strategy for MCRISS II sustainment support will include a competitive firm-fixed price IDIQ contract.

Technology Services Organization (TSO) SABRS: Funding will assist with research and development of the most efficient approach for transitioning the DON General Fund Accounting System, SABRS, to a modern data platform in order to eliminate the risk associated with an aging and expensive technology with dwindling number of technical experts. This Technical refresh/upgrade of SABRS database technology from ADABAS to a newer database architecture provides a modern and well-supported database technology that ultimately enables the normalization of Marine Corps financial data in a true relational database.

Strategic Management Decision Support (SMDS): Funding is required for the establishment of the Strategic Management Decision Support (SMDS) program, which will provide data integration, data management, and decision-support services for Marine Corps force design and development, force management, and force resourcing processes.

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<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
1319 / 5	PE 0605013M / <i>Marine Corps IT Dev/Mod</i>	2906 / <i>Marine Corps IT</i>

Command Individual Risk and Resiliency Assessment System (CIRRAS) utilizes an agile software development approach to allow for scalable continuing development. Development efforts are leveraged through NIWC LANT. The contracting strategy for development includes a competitive firm-fixed price IDIQ contract.

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013M / Marine Corps IT Dev/Mod	<b>Project (Number/Name)</b> 2906 / Marine Corps IT
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<b>Product Development (\$ in Millions)</b>				<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
MOS ODI-RMS Modernization	TBD	TBD : TBD	0.483	0.000		0.116	Sep 2021	0.000		-		0.000	-	-	-
TSO	Various	GDIT : Indianapolis, IN	0.545	0.000		0.211	May 2021	0.598	May 2022	-		0.598	-	-	-
MCRISS Modernization	SS/IDIQ	CHENEGA DECISION SCIENCES, LLC : Lorton, VA	10.092	0.000		0.163	Jun 2021	0.000		-		0.000	-	-	-
Paperless Ofc Acq Dev	WR	NAVAIR : TBD	0.000	0.000		0.484	May 2021	0.000		-		0.000	-	-	-
SMDS Development	C/BA	TBD : TBD	0.000	0.000		0.000		2.500	Feb 2022	-		2.500	-	-	-
CIRRAS Development v1.1.0.0	WR	NIWC LANT : Charleston, SC	0.000	0.418	Oct 2020	0.000		1.538	Jan 2022	-		1.538	-	-	-
CIRRAS Development v1.1.0.0	C/IDDQ	CACI : Charleston, DC	0.000	1.030	Feb 2021	0.000		2.462	Jan 2022	-		2.462	-	-	-
Prior Years Cumulative Funding	Various	Various : Various	66.367	0.000		0.000		0.000		-		0.000	-	-	-
<b>Subtotal</b>			77.487	1.448		0.974		7.098		-		7.098	-	-	N/A

<b>Support (\$ in Millions)</b>				<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Prior Years Cumulative Funding	Various	Various : Various	22.306	0.000		0.000		0.000		-		0.000	-	-	-
<b>Subtotal</b>			22.306	0.000		0.000		0.000		-		0.000	-	-	N/A

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Prior Years Cumulative Funding	Various	Various : Various	12.859	0.000		0.000		0.000		-		0.000	-	-	-



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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013M / Marine Corps IT Dev/Mod	<b>Project (Number/Name)</b> 2906 / Marine Corps IT
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Technology Services Organization (DB2 Technical Refresh)	FY 2020				FY 2021				FY 2022			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
<b>Pilot Project</b>												
Establish SABRS DB2 Pilot Development Environment	Test ▲											
<b>Establish SABRS DB2 Development Environment</b>												
Install SABRS DB2 Development Environment												
Develop SABRS DB2 Development Environment		Tables ▲	DB ▲	Code ▲	ETL ▲							
<b>Establish SABRS DB2 Production Environment</b>												
Install SABRS DB2 Environment												
Migrate SABRS Databases to DB2 Production							Table ▲					
							DB ▲	Code ▲				
								ETL ▲				
								JCL ▲				

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013M / <i>Marine Corps IT Dev/Mod</i>	<b>Project (Number/Name)</b> 2906 / <i>Marine Corps IT</i>
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<b>Strategic Management Decision Support (SMDS)</b>	FY 2020				FY 2021				FY 2022				
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	
<b>SMDS Product Development</b>											Contract Award ▲	Product Development	

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013M / Marine Corps IT Dev/Mod	<b>Project (Number/Name)</b> 2906 / Marine Corps IT
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<b>Command Individual Risk and Resiliency Assessment System</b>	FY 2020				FY 2021				FY 2022				
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	
<b>CIRRAS v1.1 Development</b>						Contract Award ▲							
							Product Development V1.1						
								Contract Award ▲		Contract Award ▲			

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<b>Exhibit R-4A, RDT&amp;E Schedule Details: PB 2022 Navy</b>		<b>Date: May 2021</b>
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013M / <i>Marine Corps IT Dev/Mod</i>	<b>Project (Number/Name)</b> 2906 / <i>Marine Corps IT</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Technology Services Organization (DB2 Technical Refresh)</b>				
Pilot Project: Establish SABRS DB2 Pilot Development Environment: Test DB2 Pilot Environment	1	2020	1	2020
Establish SABRS DB2 Development Environment: Develop SABRS DB2 Development Environment: Create DB2 Tables	2	2020	2	2020
Establish SABRS DB2 Development Environment: Develop SABRS DB2 Development Environment: Create DB2 Databases	3	2020	3	2020
Establish SABRS DB2 Development Environment: Develop SABRS DB2 Development Environment: Convert SABRS Code to work with DB2	4	2020	4	2020
Establish SABRS DB2 Development Environment: Develop SABRS DB2 Development Environment: Convert ETL tools to work with DB2	1	2021	1	2021
Establish SABRS DB2 Production Environment: Migrate SABRS Databases to DB2 Production: Migrate DB2 table to Production	4	2021	4	2021
Establish SABRS DB2 Production Environment: Migrate SABRS Databases to DB2 Production: Migrate DB2 databases to Production	4	2021	4	2021
Establish SABRS DB2 Production Environment: Migrate SABRS Databases to DB2 Production: Migrate SABRS Code to Production	1	2022	1	2022
Establish SABRS DB2 Production Environment: Migrate SABRS Databases to DB2 Production: Migrate ETL tools to Production	1	2022	1	2022
Establish SABRS DB2 Production Environment: Migrate SABRS Databases to DB2 Production: Migrate JCL to Production	1	2022	1	2022
<b>Strategic Management Decision Support (SMDS)</b>				
SMDS Product Development: SMDS Product Development	3	2022	4	2022
SMDS Product Development: Contract Award	2	2022	2	2022
<b>Command Individual Risk and Resiliency Assessment System</b>				

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013M / <i>Marine Corps IT Dev/Mod</i>	<b>Project (Number/Name)</b> 2906 / <i>Marine Corps IT</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
CIRRAS v1.1 Development: CIRRAS v1.1 Development	3	2021	4	2022
CIRRAS v1.1 Development: NIWC Contract Award funding increment 1	2	2021	2	2021
CIRRAS v1.1 Development: NIWC Contract Award funding increment 2	4	2021	4	2021
CIRRAS v1.1 Development: NIWC Contract Award funding increment 3	2	2022	2	2022

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Navy										<b>Date:</b> May 2021		
<b>Appropriation/Budget Activity</b> 1319 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605013M / <i>Marine Corps IT Dev/Mod</i>				<b>Project (Number/Name)</b> 9406 / <i>Maintenance Data Warehouse</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
9406: <i>Maintenance Data Warehouse</i>	0.000	0.000	0.000	4.179	-	4.179	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

Aviation Logistics Environment (ALE) provides a global logistics enterprise solution, delivering capabilities via a net-centric, shared data environment that supports shore-based, afloat, and expeditionary operations. ALE consists of three components; Ground Station, Aviation PLM, and Enterprise Service Bus (ESB). The Maintenance Engineering Ground Station for Aviation (MEGA) is the Naval Aviation Type/Model/Series (T/M/S)-agnostic ground station. MEGA is currently under development using Government off-the-Shelf (GOTS) software and PLM/ESB is configuring Commercial off-the-Shelf (COTS). The Aviation Product Lifecycle Management (Aviation PLM) capability will provide the digital thread of aviation logistics data for allowable and as-configured Repair Bill of Materials (R BOM) sustainment, technical bulletins, technical directives and engineering change proposals, and reliability centered maintenance and maintenance planning. The Enterprise Service Bus (ESB) capability will provide the digital backbone for data connections to and from authoritative data sources. ALE consolidates aging, near-end-of-life systems and applications and aligns Information Assurance (IA) and cybersecurity requirements.

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

	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
<b>Title:</b> Aviation Logistics Environment (ALE)	0.000	0.000	4.179	0.000	4.179
<b>Articles:</b>	-	-	-	-	-
<b>FY 2021 Plans:</b> N/A					
<b>FY 2022 Base Plans:</b> The Aviation Logistics Environment (ALE) program will have two Limited Deployments to include: (1) System Migrations that retire legacy logistics IT systems and incorporate key capabilities for management of Engineering product data, end item configuration, deficiency reporting, standard ITEM viewing, and technical manuals (2) Integration with NAVAIR weapon systems, (3) Integration with other Navy modernization efforts to include Navy MRO and Supply Chain Management. ALE will also complete Cloud Migration that migrates the entire AvPLM infrastructure into the Cloud.					
<b>FY 2022 OCO Plans:</b> N/A					
<b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Increase to ALE program is required to enable alignment with the planned retirement of legacy systems and integration with other modernization efforts. The ALE program must be scaled to accommodate all users of the					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Navy	<b>Date:</b> May 2021
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<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013M / <i>Marine Corps IT Dev/Mod</i>	<b>Project (Number/Name)</b> 9406 / <i>Maintenance Data Warehouse</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
systems that are being retired, and must complete cloud migration in order to avoid a costly technical refresh of on premise computing infrastructure.					
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	0.000	4.179	0.000	4.179

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

N/A

**Remarks**

**D. Acquisition Strategy**

The management approach includes the Logistics IT Portfolio Management Office residing in NAVAIR as part of Program Executive Office for Aviation Common Systems and Commercial Services (PEO(CS)).

Aviation Logistics Environment (ALE)- Development services will be awarded using a competitively awarded contract that will contain a matrix of tasks and required levels of performance. Follow on contracts will also follow the same competitive system. The Services provided under the contract support acquisitions will not encompass tasks inherently Governmental in nature and the Statements of Work will include a matrix that establishes the minimum acceptable performance standards.



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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013M / <i>Marine Corps IT Dev/Mod</i>	<b>Project (Number/Name)</b> 9406 / <i>Maintenance Data Warehouse</i>
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	<b>FY2020</b>				<b>FY2021</b>				<b>FY2022</b>			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>ALE</b>												
<b>Software Development</b>												
									<b>PLM/ESB/MEGA LD 5</b>	<b>PLM/ESB/MEGA LD 6</b>		
<b>Test &amp; Evaluation</b>  <i>Test &amp; Evaluation</i>										<b>LD 5</b>		<b>LD6</b>
<b>Deliveries/Field Implementation</b>  <i>T/M/S Onboarding</i>										<b>LD 5</b> ▼		<b>LD 6</b> ▼
LD-Limited Deployment												

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013M / <i>Marine Corps IT Dev/Mod</i>	<b>Project (Number/Name)</b> 9406 / <i>Maintenance Data Warehouse</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Aviation Logistics Environment (ALE)</i></b>				
Software Development: PLM Solution/ESB/MEGA Limited Deployment 5	1	2022	2	2022
Software Development: PLM Solution/ESB/MEGA Limited Deployment 6	3	2022	4	2022
Test and Evaluation: LD 5 Test and Evaluation	2	2022	2	2022
Test and Evaluation: LD 6 Test and Evaluation	4	2022	4	2022
Implementation: T/M/S Onboarding LD 5	2	2022	2	2022
Implementation: T/M/S Onboarding LD 6	4	2022	4	2022