Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy											Date: April 2022	
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COST ($ in Millions)	**Prior Years**	**FY 2021**	**FY 2022**	**FY 2023 Base**	**FY 2023 OCO**	**FY 2023 Total**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**Cost To Complete**	**Total Cost**
Total Program Element	1,005.395	249.778	271.085	290.353	-	290.353	234.360	185.279	118.984	118.103	Continuing	Continuing
2901: *Navy Enterprise IT*	131.048	26.339	39.520	54.215	-	54.215	35.691	33.654	31.271	29.505	Continuing	Continuing
2903: *NAVAIR IT*	62.934	7.672	4.683	11.413	-	11.413	11.277	10.761	11.130	11.596	Continuing	Continuing
2904: *NAVSEA IT*	284.511	21.530	16.579	17.474	-	17.474	20.214	20.690	20.091	20.113	Continuing	Continuing
2905: *BUPERS IT*	271.239	133.102	140.520	145.401	-	145.401	114.438	68.420	4.388	3.947	Continuing	Continuing
2953: *Model Based Product Support (MBPS)*	0.000	0.000	0.000	10.817	-	10.817	0.354	0.333	0.318	0.290	Continuing	Continuing
3167: *Joint Technical Data Integration (JTDI)*	46.465	7.380	5.952	6.437	-	6.437	8.105	8.078	7.981	8.120	Continuing	Continuing
3185: *Joint Airlift Information System (JALIS)*	3.023	0.293	0.365	0.474	-	0.474	0.567	0.546	0.505	0.514	Continuing	Continuing
3432: *NMMES-TR*	73.628	8.786	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	82.414
9406: *Maintenance Data Warehouse*	101.185	35.023	31.466	44.122	-	44.122	43.714	42.797	43.300	44.018	Continuing	Continuing
9999: *Congressional Adds*	31.362	9.653	32.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	73.015

A. Mission Description and Budget Item Justification

2901 Navy Enterprise IT

SECNAV PROJECTS IT SYSTEM MODERNIZATION

The Department of the Navy Chief Information Officer, Technology Division (DONCIO IT) provides Information Technology (IT), Information Assurance (IA), Information Management (IM), Document Management (DM), Records Management (RM), Knowledge Management (KM) and other related support services to the Secretary of the Navy (SECNAV), Chief of Naval Operations (OPNAV), and the DON Secretariat. This support spans across over 24 organizations, covers nearly 6,000 individual customers, and countless worldwide end users.

NAVY'S CIVILIAN HUMAN CAPITAL STRATEGY (HCS)

HCS enables the DON to access, curate, and engage the best civilian talent, taking into account the DON's unique mission and its global impact on U.S. national security. The Secretary of the Navy (SECNAV) directed the HCS Task Force to develop the DON's HCS as a commitment to provide the civilian workforce a world-class

experience with opportunities for continuous learning and career mobility, augmented with consumer-grade digital platforms. The HCS Task Force will provide expertise and innovation to catalyze change and drive enhanced performance of business operations.

ELECTRONIC PROCUREMENT SYSTEM (ePS)

ePS provides the Department of the Navy Solution for Electronic Contract Writing replacing the existing Standard Procurement System (SPS) and DoN Integrated Contracting Environment (DICE) capabilities and deficiencies. ePS aligns Contract Writing System (CWS) with Financial Improvement Audit Readiness requirements mandated by Congress and the Department of Navy's goal for an auditable link between financial management and contract writing system. It supports strategic sourcing and seamless exchange of data in addition to evolving to meet changing requirements. The improved capabilities will meet emerging data standards Procurement Data Standards/Procurement Request Data Standards (PDS/PRDS), in addition to complying with Office of the Secretary of Defense (OSD) Clause Logic Service. ePS meets the intent of the National Defense Authorization Act of 2013 by providing an electronic means to award contracts.

NMCI ENTERPRISE SERVICE TOOLS (NEST)

Navy's Next Generation Enterprise Network (NGEN) utilizes the NMCI Enterprise Service Tools (NEST) as an integrated set of tools that facilitate the full service lifecycle management (SLM) of customer service requests for IT services, including RAPT(Requirement to Award Process Tool), NET (NMCI Enterprise Tool), and Enterprise Reporting. NEST is considered a Government Owned/ Contractor Operated defense business system (DBS) that has a valid ATO.

WARFIGHTING CAPABILITY ASSESSMENT - FORCE LEVEL INTEGRATION (FLINT)

FLINT is a digital decision support solution that enables mass exploration of POM alternatives, positioning the Navy's POM programing process to evolve from a subjective human capital and document-centric process to a data driven, model-centric process that leverages automated frameworks and computing to serve as the analytical underpinning for developing the POM. FLINTs mission is to integrate the numerous and disparate tools, databases, models, simulations, analyses, and subject matter expertise necessary to facilitate and optimize Navy POM decision making. FLINT provides senior leadership with programming options that capture the fiscal trade-offs and their consequences to warfighting effectiveness when measured against defined criteria and enables relative valuation across all POM requirements.

LIVE, VIRTUAL, AND CONSTRUCTIVE (LVC) TRAINING DEVELOPMENT

Under the Optimized Fleet Response Plan (OFRP) the IWC lacks a Live, Virtual and Constructive (LVC) capability or facility for basic unit level training or advanced/ integrated training for Carrier Strike Group (CSG), Amphibious Readiness Group (ARG) and DESRON staffs. Training is also constrained by security limitations and an inability to replicate adversary tactics, techniques and procedures (TTPs) with a representative opposing force. The ability to participate in the Navy Continuous Training Environment (NCTE) facilitates the integration of IW capabilities into an existing training, with an end goal being to provide reconfigurable training modules to

include classrooms, hardware systems, software, scenario generation teams, and debrief tools. Providing the Fleet with a scalable virtual environment to train and build proficient IW capable forces will strengthen our warfighting ability.

NEXT GENERATION ENTERPRISE NETWORK (NGEN)NETWORK ARCHITECHTURE DESIGN AND TESTING

The Next Generation Network (NGEN) program mission is to ensure and provide a modernized enterprise approach to delivery of a fully integrated, interoperable, and secure networking platform capable of delivering the information technology (IT)-based mission needs of major Fleet and shore-based Navy claimants and stakeholders. The network has begun modernization efforts towards a flexible and agile IT standard approach, using an architecture and service strategy aligned with commercial best practices. The new service delivery approach features diverse sourcing, leveraging of cloud/web-scale infrastructure and software-defined flexibility, which the Navy will seek to take advantage of the NGEN-R family of contracts.

NGEN is implementing a technical enterprise architecture that replaces obsolete technologies associated with NMCI and ONE-Net platforms. Navy's Digitization Journey is dependent upon the Navy's Enterprise Network. The modernized platform will meet today and future mission requirements. Current on-premise infrastructure must transform and evolve to a future cloud native environment to enable the warfighter to access data across multiple domains. Through recapitalization of applicable legacy hardware and converging network infrastructure toward a cloud native design, Next Generation Enterprise Network will reduce the need for constant platform reconfiguration and ensure the end-user receives current capabilities required to perform job functions at various classification levels. Multifactor authentication and centralized management of user personas enables zero-trust based cyber security from the onset of system development throughout the entire lifecycle. Uniform enterprise security controls across the system lifecycle ensures consistency across the development, testing, and operational phased deployment workflow thus reducing rework. The flattened network design will enable contracting and acquisitions to quickly deploy solutions from the labs to the user community in near real-time.

2903 NAVAIR IT

Configuration Management Information System (CMIS) - This program was originally identified as Joint Configuration Management Information System (JCMIS) to reflect the main software tool used for component tracking and Aircraft Configuration Management. However, as the available data sources from the fleet have expanded, the new name of CMS was chosen to better acknowledge the variety of information sources which are received, integrated, and compiled to give the most accurate component record data and aircraft configuration. CMS serves as the Program of Record (POR) to manage and control Navy and Marine Corps aviation component data reconstruction efforts. CMS compiles record data via fleet documentation of component updates and captures this information via a centrally managed database within the current software tool, Joint Configuration Management Information System (JCMIS). CMS efficiently manages product structure data, including complex interrelationships between assemblies and subassemblies, technical documentation and the parts that comprise the item. Accurate, complete and accessible configuration data is critical to the successful operations of DoD weapon systems or tracked assets. Mission readiness and operational capabilities are enhanced by CMS, as consistent integrated configuration data is readily available to operators, maintainers and logistics personnel. CMS provides users with a common database infrastructure to ensure compatibility, quality, and consistency of Configuration Management (CM) processes and provides configuration managers and analysts the

validated CM information necessary for accurate maintenance, spare procurements, reliability and safety analysis, and mission readiness. Funding is budgeted to support the services of re-hosting and testing of Commercial off-the-shelf (COTS) upgrades to ensure objective performance of CMS is achieved.

Navy Cybersecurity - Cyber Warfare consists of many different aspects to include sabotage of our weapon systems, networks as well as enablement of missions. Nation and non-nation state actors are acquiring and employing more advanced cyber-attacks in order to exploit our networks and aviation systems challenging our technological edge. The threats and capabilities are real and range from exploiting capabilities, overloading weapons systems and logistics supply chains, to jamming signals or taking control of weapons systems. We must defend against adversarial cyber attacks while contributing to the exploitation of cyber warfare capabilities.

To meet these challenges and address the Chief of Naval Operations priorities and tasking, these R&D efforts are specifically focused on Naval Air Systems Command weapon or control systems and programs to ensure warfighting effectiveness as part of integrated / multi-platform kill chains. These research and development efforts will strengthen our cyber posture by developing research, development, test and evaluation capabilities and solutions to deter, detect, and mitigate cyber threats and safeguard classified naval aviation systems and platforms from "cradle to grave." These solutions will be integrated into the acquisition of weapons systems to enhance security, increase lethality, and improve resiliency in the expected operational environments. Our weapon or control systems are unique in the aforementioned environments and mission, but also in the presence of numerous non-traditional access points and trusted cyber relationships required for operational environments.

Further, this line sustains Naval Aviation's Red Team capability to research, identify and validate nation-state exploitable cyber susceptibilities and vulnerabilities in both deployed and next-generation warfighting platforms. Through it, these efforts improve Naval Aviation's mission survivability by developing and demonstrating operational TTPs within the cyber-contested environment. The team partners with Naval Aviation programs to certify theorized cyber weaknesses and thus to prevent denial, degradation or disruption of safety, readiness, and mission. The Red Team's assessment products support CYBERSAFE certification of platforms and systems, and likewise supports PMAs and OPNAV with validated threat data to prioritizing systems security engineering (SSE) investments. The team leverages national-level cyber warfare experts, all-source intelligence, and technology research to assess NAE operational technology, fleet exercises, support equipment, enterprise logistics systems, and supply chain.

Digital Thread (DT)- Capability provides digital process integration with complete, secure and authoritative data, coordinated as part of approved Navy LOG-IT. DT integrates the product life cycle to provide universal access to authoritative data and workflow automation, enabling configuration management of data, implementation of closed loop quality, and consolidation of engineering products including digital enablement of additive manufacturing. Connecting these processes using standardized digital tools and data accelerates the product development cycle and lowers costs for support and new capability integration. The Digital Thread capability includes development and demonstration of cyber security architectures for sustainment information systems, and development of a digital/additive manufacturing data architecture and repository.

Digital Production Floor (DPF)- Initiative modernizes Navy Aviation Depots by removing paper from the Production floor and integrating key Quality elements to support a true digital North Star ensuring viability and alignment with broader Naval Logistics IT (LOG-IT) enterprise initiatives to realize a fully unified digital sustainment capability. This capability aligns and leverages ongoing Digital Thread /Aviation Product Lifecycle Management (AvPLM) efforts to transform our existing way of doing business and align us with commercial best practices for digitization of business processes. Current paper based processes have demonstrated inefficiencies and administrative delays in performance and quality of product on Depot level repair turnaround times.

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2904 NAVSEA IT

This program includes the funding for the Information Technology (IT) tools utilized in shore maritime maintenance planning, execution, tracking, quality control, certification, closeout, employee qualifications, and payroll. This program supports ship, submarine, and aircraft carrier maintenance. The Navy Maritime Maintenance Enterprise Solution (NMMES) includes efforts for the development, support, and sustainment of maritime shore maintenance and includes multiple modernization efforts to insure effectiveness of Fleet maintenance systems. This includes the retirement and/or replacement of costly systems and applications, transition planning, and systems engineering for integration with current and future enterprise solutions. These efforts align with direction to insure that these solutions support a planned, single maintenance solution end state, as well as direction to align with multiple laws, regulations, policies, and guidance across the FYDP. It includes the modernization of Naval Shipyard, Regional Maintenance Centers, and Forward Deployed Naval Forces' planning, Maintenance, Repair and Overhaul (MRO) production tools. This includes modifications/enhancements to Shipyard IT applications, for work execution management, critical chain scheduling, workload and performance applications, the availability cost tracking, and material management applications, and other solutions such as the Electronic Technical Working Document (eTWD) initiative. The goal is to provide modernization, migration, and consolidation of obsolete legacy IT tools to a modern, supportable, and modular solution enabling Fleet Maintenance across Intermediate and Depot level maintenance activities worldwide for the Navy.

2905 BUPERS IT

MyNavy Human Resources (HR) Transformation - formerly known as Manpower, Personnel, Training & Education (MPT&E) Transformation -- will change how HR services are provided throughout a Sailor's entire "Hire-to-Retire" lifecycle and improve fleet combat readiness. By streamlining processes and systems, MyNavy HR will improve the speed, accuracy, and quality of personnel and pay services, better positioning the Navy to equip and manage its people.

This effort is the linchpin of the Navy's MPT&E Business IT Transformation strategy that stems from the decision to invest in programs that directly align with the Sailor 2025 vision. The current 70-year-old business processes and 40-year-old obsolete IT systems will not sustain Fleet anticipated growth and is neither cost efficient nor effective. MyNavy HR involves revolutionary change by using agile delivery model to the greatest extent possible to implement business IT products using the Industry Best Practices Model (e.g., early investment for largest ROI, rapid prototyping, and vanilla COTS products usage.) MyNavy HR is a fully integrated portfolio of IT Systems organized into five distinct pillars: Navy Personnel and Pay (NP2), Learning Stack (LS), Enterprise Customer Relationship Management (eCRM), Single Point of Entry (SPOE), and Authoritative Data Environment (ADE). This portfolio of systems serves as the cornerstone of the OPNAV N1 MyNavy HR strategy.

The impetus for building an adaptive family of systems is gearing MyNavy HR Transformation towards customer needs. The traditional waterfall delivery methodology of IT goods and services cannot meet the emergent requirements evolving from shortened technical obsolescence. Thus, MyNavy HR Transformation will employ an Agile delivery method that is highly structured, with a repeatable software development approach designed to quickly deliver usable capability to the end user. These capabilities are packaged as Minimum Viable Products (MVPs) which are routinely delivered to the customer for their use and evaluation. Favorably received MVPs are subsequently refined and integrated into a production baseline.

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Rapidly integrating a family of systems using an agile methodology necessitates an overarching system integrator and coordinator to ingest pilots and prototypes into a technical baseline. The Transformation Portfolio Coordinator & Production (TPC&P) contract is an IDIQ contract that will deliver a family of systems in support of MyNavy HR. This contract will provide the Global Design & Strategic Planning to baseline the "55 to 1" technical execution plan and will articulate the "system of systems" baseline release. Additionally, pilots and prototypes that have reached sufficient maturity will be integrated and deployed into the production baseline under this contract.

AUTHORITATIVE DATA ENVIRONMENT (ADE)
The Authoritative Data Environment (ADE) is an enterprise information management system that will migrate the existing legacy data warehouses into a central data repository that is composed of a data warehouse, data lake, data management tools and an Application Program Interface (API) Layer.
ADE will provide an authoritative data-sharing framework, leveraging scalable and interoperable technologies as well as business intelligence and data analytic capabilities.
ADE will need to interface and integrate with SPOE and all MyNavy HR transactional and business systems, including enabling 'plug & play' of new services, technologies, and system capabilities. Some of the key principles of ADE include:
1. Flexible architecture and scalable design.
2. Data Governance to produce authoritative, cleansed, conformed, consolidated, and calculated data.
3. Data Access to specified users.
4. Master Data Management (core elements, metadata tagging, business rules, standards, metrics, and tools).
5. Data analytics and business intelligence (descriptive, prescriptive, and predictive).
6. Identification, development, and maintenance of enterprise data policies.

ENTERPRISE CUSTOMER RELATIONSHIP MANAGEMENT (eCRM)
The eCRM solution will integrate business processes, supporting systems, and authoritative data in support of Navy Personnel Command's (NPC's) MNCC (My Navy Career Center), Navy Recruiting Command (NRC), Navy Education & Training Command (NETC), and other commands that manage the Navy workforce.
The eCRM solution provides an approach to manage information on current and future Sailors, veterans, and their families. The eCRM solution is organized by the following segments:
1. Sales Management - recording all stages of the prospecting process to include contact management, leads tracking, forecasting and initial processing.
2. Knowledge Management - providing the tools for identifying, capturing, evaluating, retrieving, and sharing information assets.
3. Case Management - supporting the automation of processes to formulate opinions, approvals, and fulfillment of case related requests.
4. Performance Management- supporting the performance of Navy Sailors.
5. Recruiting - eCRM capabilities provide several functions in support of the Navy's recruiting needs, to include:
A. Provide personally identifiable information (PII) in a commercial cloud platform.
B. Provide ability for users to access mobile platforms.
C. Meet Navy Cybersecurity requirements to protect Impact Level (IL) 4 data and will achieve an Authority to Operate (ATO) from the Navy Authorizing Official (NAO).
D. Support non-recruiting activities and address case management and knowledge management. Case management functionality supports tracking incidents, and knowledge management provides for sharing and collaborating across various business areas.

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LEARNING STACK (LS)
The Learning Stack will provide a cloud-based material solution that will streamline learning management (course/content delivery and assessments), capture and record interactive learning experiences, enable curriculum authoring and development, provide student Sailor registration and administration, create and regulate course/student scheduling, and offer e-learning capabilities, such as distance learning.

The Learning Stack is a delivery vehicle for the following core objectives of the Ready Relevant Learning (RRL) initiative:

Learning Management System (LMS) with Assessments
Learning Record Store (LRS)
Curriculum Development System (CDS)
Student Information System (SIS)
Enterprise Resource Scheduler (ERS)
Collaborative Learning Environment (CLE)

The Learning Stack is one of three lines of effort that is the Navy's strategy for it learning continuum. The other two are RRL content modernization, and the Training Network infrastructure. Collectively, these three individual efforts will cultivate instruction content that meets Fleet validated needs (ashore and afloat), and provide keystone delivery mechanisms that will decrease training timelines, assimilate operational agility, and improve overall mission readiness.

Additionally, the Learning Stack supports the MyNavy HR Transformation Program that includes yet expands beyond the RRL core initiatives identified above. In support of the broader MyNavy HR enterprise, the Learning Stack will provide a centralized, authoritative repository for Interactive Multimedia Instruction (IMI) courseware, officer and citizen development (NJROTC and ROTC candidate management), enlisted advancement exam development and distribution, enlisted degree completions, and tuition assistance authorizations.

The RRL and MyNavy HR Transformation initiatives require the development of Learning Stack capabilities that permit:

1. Mobile & flexible delivery of modular training to the Sailor
2. Synchronization of work requirements with learning modules to ensure proper training delivery
3. Leveraging cloud-hosted capabilities to optimize the Learning Stack delivery model

NAVY PERSONNEL AND PAY (NP2)
A 2015 analysis of alternatives for integration of personnel and pay capabilities recommended the use of Oracle PeopleSoft 9.2 with Global Payroll for achieving the Navy's Personnel and Pay IT needs. Follow-on analysis conducted as part of the MyNavy HR Transformation efforts in 2016 and 2017 indicated that the most cost effective approach to achieving the Transformation goals of modernizing HR Business System IT consistent with industry best practices was de-customization of the

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Navy Standard Integrated Personnel System (NSIPS) which uses Oracle PeopleSoft as its core technology, integration with Global Payroll, use of General Ledger to maximize auditability and accounting functions and hosting of the integrated solution. Navy Personnel and Pay (NP2) will sustain and develop the core system of systems architecture; executing pilot programs and iterative development of capabilities for Navy's MyNavy HR Transformation.

The NP2 adapts and reengineers business processes to conform to the technical parameters of PeopleSoft 9.2 while integrating with the Direct to Treasury Pay Capability via Pay Modernization (Pay Mod). This combined effort will result in a vanilla Commercial Off the Shelf, cloud hosted, integrated personnel and pay solution that will provide the Navy with an IT system that is modern, highly automated, auditable, and more efficient.
Implementation of NP2 will result in several key benefits:
1. Improved accuracy and auditability of personnel and pay transactions.
2. Treasury Direct Disbursing eliminating Navy reliance on the Defense Joint Military Pay System.
3. Improved permeability of Active and Reserve Components to improve accuracy and eliminate delays in pay processing when a member moves between components.
4. Increased automation of common personnel and pay transactions
5. Integration of functionality currently spread across 55 different adhoc and outdated HR Business Systems.

SINGLE POINT OF ENTRY (SPOE)
SPOE is an information management concept that provides an intuitive self-service capability for Sailors to view and manage personnel and career information, providing Sailors with access to information including learning content, HR applications, and career business processes. SPOE will be the user-facing capability, enabling the MyNavy Career Center (MNCC), linking Sailors to modernized personnel and pay capabilities in NP2, providing Sailor training through the LS, and access to authoritative data, which holds their personnel and pay record information. SPOE consolidates Navy's Human HR portals, knowledge, and applications into a single, simplified user experience and will include processes and functionality, such as:
1. Integration of capabilities, to include: My Navy Portal (MNP), Mobile Applications, CRM solution, and Credential Access Management (ICAM);
2. MNP
A. Serve as the My NavyHR's single point of entry to Sailors HR resources
B. Provide capability to have a low bandwidth version accessible to Sailors operating in a restricted bandwidth environment
C. Provide CAC-free access for Sailors accessing MNP via personal devices such as smart phones, tablets, personal laptops and computers.
3. ICAM
A. Provide authentication and single sign on capability for access to the objective My Navy HR capability
4. Mobility Program
A. Ability to host and manage mobile applications through the Navy App Locker
B. Provide Mobile application management suite/platform
C. Develop new MNP mobile application - native app for Sailors to access personal data and career life events

2953 MODEL BASED PRODUCT SUPPORT (MBPS) - Formerly known as Product Lifecycle Management (PLM)

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Logistics Information Technology (LOG-IT) modernization will provide the capability of performing integrated, real-time, data driven operational and shore logistics. LOG-IT systems must be able to operate in disconnected environments with modern, cyber-secure and auditable systems that Compress the Kill Chain. The MBPS program is major authoritative data source for LOG-IT. The MBPS program modernizes ship / submarine readiness modeling, technical data management, and configuration management IT systems to enable advanced digital twin and readiness analytics capabilities. MBPS provides capability directed by ASN RDA (IAW ASN RDA Acquisition Decision Memorandum of 5/25/2021) in support of Digital Transformation to migrate legacy LOG IT applications into an integrated Navy Product Life-Cycle Management (N-PLM) environment to include both maritime and aviation support. It will be hosted in a Government-approved commercial cloud environment and used on a 24/7 basis by over 200,000 personnel assigned to 286 ships/submarines, all aircraft and over 700 shore-based activities, impacting a yearly $6.5B investment in product sustainment.

Additional resources are required to complete MBPS capability to execute the replacement of legacy LOG IT systems into N-PLM to support Planned Maintenance, Modernization Planning, and Operational Availability reporting. Use of RDT&E funding allows for performance of engineering development, design testing, data integration, training development and cybersecurity requirements and award capability development via Other Transaction Authority or via PTC development contract to complete MBPS MVPs and align efforts with NAVAIR under PEO MLB to transition to a single Navy PLM beginning in FY23.

Per CNO's address to SASC 31 July 2019, "Given the changing security environment and the increasingly multi-domain nature of threats, accelerating our Navy's digital transformation will be critical to preparing our Sailors to deter, fight and win. Digital technologies have the potential to be a force multiplier, putting data at the center of all of our decisions and transforming how we fight, stay ready, and conduct business operations." MBPS will enable global visibility across all weapon systems, all echelons and all supported units with real-time logistics and readiness data in a single picture to compress the logistics kill chain.

3167 JOINT TECHNICAL DATA INTEGRATION (JTDI)

Joint Technical Data Integration (JTDI) Program - Funding provides an enterprise common data transport solution to support the future state for Logistics IT and Readiness: Naval Product Lifecycle Management (N-PLM), Naval Maintenance, Repair, and Overhaul (N-MRO), Naval Supply Chain Management (N-SCM), and Integrated Data Environment (IDE). In addition to transporting authoritative technical data to maintainers in the ashore, afloat, and expeditionary environments, JTDI also automates the movement of CBM+ data generated by smart weapon systems deployed around the globe, consolidates and makes platform sensor data available for automated ingest into the Standard Data Repository, which provides modern, highly integrated analytic capabilities to enable condition-based maintenance processes. JTDI is a digital technical data access, delivery and local Organizational & Intermediate level library management toolset that improves accuracy and timeliness of weapon system repair manuals and other technical data delivery, minimizes the Fleet's library management burden, and reduces maintenance work hours with a Return on Investment of 2.5:1. Funding supports the evaluation, testing and integration to develop a JTDI Government Off-The-Shelf (GOTS) solution for installation on Carrier and Amphibious Assault class ships, the Consolidated Afloat Networks and Enterprise Services Network (CANES), and at other globally deployed Navy/Marine Corps activities. JTDI is aligned with NAVAIR LOG IT digital transformation objectives and Navy Digital Roadmap.

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Marine Aviation Logistics Enterprise Information Technology (MAL-EIT) - MAL-EIT funding supports the evaluation, development, testing and integration of software and hardware solutions across all US Marine Corps Aviation activities to be used in the planning and execution of geographically distributed, expeditionary Aviation Logistics (AVLOG) chains in support of deployed USMC Air Combat Element operations. The MAL-EIT Program is one of four programs contained within the Marine Aviation Logistics Support Program (MALSP) modernization program known as MALSP II. Legacy MALSP is nearly 25 years old and grossly inadequate in IT capability to meet the informational, planning, and C2 needs of a dynamic, geographically distributed nodal AVLOG system. MAL-EIT is a Defense Business System Abbreviated Acquisition Program that will develop and deliver the required IT capability necessary to eliminate the IT related gaps existing in the legacy MALSP. MAL-EIT is a family of IT solutions to be developed and delivered in three increments. These increments are depicted below:

Expeditionary Pack Up Kit (EPUK): Provides Expeditionary Supply Operations to include business administration, inventory, and customer service operations.

Next Generation Buffer Management System: Provides buffer management in a time domain, and buffer sizing analysis.

Logistics Planning Tool and Optimizer Tool: Provides capability to develop tailored Remote Expeditionary Support Packages, consumption forecasts, and Nodal Logistics Lay down designs.

3185 JOINT AIR LOGISTIC INFORMATION SYSTEM (JALIS)

JALIS is an operational scheduling and aircraft management system that facilitates real-time data analysis. JALIS is a critical element in the management of DoD air logistics assets. JALIS allows:

(1) DoD Service Personnel to submit airlift requirements for DoD Personnel and cargo
(2) Air Logistics Flying Units to communicate their aircraft availability in a real-time graphic display
(3) Designated Scheduling Organizations to compare airlift requirements with available aircraft
(4) Designated Scheduling Organizations to create mission assignments

JALIS informs applicable users of mission details and modifications by using a combination of system displays and email updates. JALIS is geographically distributed and has a user base in excess of 4,000 members. JALIS facilitates the movement of thousands of DoD Personnel and tons of cargo annually in support of the following:

(1) Navy Unique Fleet Essential Airlift
(2) Army's Operational Support Airlift Agency (OSAA)
(3) United States Transportation Command (USTRANSCOM)
(4) United States Marine Corps (USMC)

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9406 MAINTENANCE DATA WAREHOUSE

Maintenance Data Warehouse funds the Naval Aviation Enterprise (NAE) Sustainment Vision (SV) 2020 digital transformation which is a critical component of improving readiness. It will be executed in a fully agile manner providing continuous fleet readiness improvements across the FYDP. The initial SV 2020 configuration will be supported with an agile Minimal Viable Product (MVP) as the foundation for continuous capability introduction. The Aviation Logistics Environment (ALE) will provide the seamless environment to support the integration of the other capabilities developed in Maintenance Data Warehouse.

Aviation Data Warehouse/Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE) program is the next generation data warehouse containing over 30 years of aircraft maintenance, flight, components, and usage data. Through the use of web-based, commercial off the shelf software for data load, analysis, query, and reporting tools, the user has the capabilities to effectively obtain readiness data in a near real-time environment, as well as providing historical data for long range planning, trend and records analysis, records reconstruction, and compliance with technical directives. DECKPLATE supports the mission of the warfighter who requires a single source of near real-time aviation data in which to base critical readiness decisions. DECKPLATE collects data from authoritative sources, such as the fleet maintenance systems, into a data warehouse. Because the warfighter only needs to access one database, the time consuming task of collecting various pieces of data from various sources will be reduced and ultimately eliminated. This also accomplishes a reduction in legacy systems mandated by Office of the Chief of Naval Operations. DECKPLATE manages total inventory for two major categories of assets, Aircraft (General Equipment) and Engine/Propulsion Systems/Modules (EPSMs) (Operating Materials & Supply). DECKPLATE is comprised of the transactional Aircraft Inventory and Readiness Reporting (DECK-AIRRS) and the Engine Transaction Reporting (DECK-ETR) subsystems which provide the complete lifecycle for aircraft and Engine/ Propulsion System/Modules (EPSMs). DECKPLATE has been identified as a level 1 financial feeder system due to the value of the aircraft and EPSM's managed in the system, and continues to respond to audit compliance and Cyber Security mandates. DECKPLATE is a core feeder system to numerous NAVAIR efforts.

Condition Based Maintenance Plus (CBM+) solution is an initiative which provides Naval Aviation Enterprise with common enabling capabilities which deliver timely data-driven, decisional information to optimize aircraft availability and materiel readiness by incorporating health and usage leading indicators into the failure mode mitigation process, enabling the Warfighter to more efficiently meet mission requirements through automated analysis and decision making processes. The CBM+ initiative increases readiness through streamlined maintenance processes which provide the sustainment base with timely, actionable logistics/engineering data and integrated analytics not previously available, enabling engineers and acquisition professionals to support system improvements based on CBM+ acquired data and analytic results. CBM+ provides the enabling infrastructure and storage solutions within an Enterprise common environment needed to store and analyze weapon system sensor data to extend the life of current and new acquisition aircraft, realizing savings from reductions in field (organizational and intermediate) maintenance actions, reduced functional check flight hours, mishap mitigation, and reduced parts usage.

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

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy	Date: April 2022
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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.

Vector (formally Integrated Logistics Management System (ILSMS)) supports the development of a common logistics analytical application which uses a disciplined approach to Business Intelligence (BI) architecture by combining products, data, technology and methods aimed at key Naval Aviation Enterprise (NAE) business processes. Vector provides a single view of the data to focus on aircraft readiness, maintenance, supply, cost, and man-hours. Vector provides naval aviation with a common view of approved key performance metrics and the capability to perform multi-system analysis of Ready for Tasking (RFT)/Ready Basic Aircraft (RBA) Gap drivers, 'Top-Down' aircraft systems analysis down to the component level. Vector identifies system performance trends early to mitigate future readiness and cost impacts to the fleet.

- Dynamic Scheduling optimizes aircraft (BuNo specific), engine and component maintenance through task sequencing based on reliability and failure data, and asset utilization vice calendar directed maintenance. Dynamic Scheduling will have insight to demand across the NAE and can affect maintenance across all levels of maintenance. Dynamic Scheduling IT system capability will interface with authoritative source systems providing and consuming operational demand, man power, training, supply and others. Near term Dynamic Scheduling capability is planned for NALCOMIS OOMA and future state DS capability is planned for NAMS implementation. Both material and non-material changes implemented along with the DS IT system will provide capability that overcomes the challenges faced by the as-is state to include: Advanced scheduling capabilities interfaced with current future MRO system to enable system assisted scheduling, optimization and opportunistic maintenance.
- Insight and the ability to collaborate and affect schedules across all levels of maintenance and MRO systems.
- Capture and analysis of RCM mitigations strategies with the ability to quickly implement changes to maintenance tasks and periodicities.
- The ability to package Technical Manuals for serial number specific, scheduled event tasks at the point of maintenance.
- The ability to provide additional point of maintenance technical data and support to enable the maintainer of the future.

Optimized Scheduled Maintenance and Dynamic Scheduling IT system capabilities will contribute to the reduction of MMHs and increase in operational availability objectives by positively affecting the efficiency of maintenance at the O, I & D-Levels of maintenance across the NAE. Future state OSM IT system capability may be provided by the Aviation Logistics Environment (ALE)/Product Lifecycle Management (PLM) solutions. Dynamic Scheduling IT capability is schedule to be developed as an interface to NALCOMIS OOMA in FY 19 timeframe. Future state version of Dynamic Scheduling IT capability will interoperate with Naval Aviation Maintenance System (NAMS) and other future state system such as Naval Data Repository (NDR), ALE/PLM, and Navy Depot Management System (NDMS).

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy	Date: April 2022
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B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	270.110	243.828	0.000	-	0.000
Current President's Budget	249.778	271.085	290.353	-	290.353
Total Adjustments	-20.332	27.257	290.353	-	290.353
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-4.743			
• Congressional Rescissions	-	-			
• Congressional Adds	-	32.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-10.607	0.000			
• SBIR/STTR Transfer	-9.726	0.000			
• Program Adjustments	0.000	0.000	0.000	-	0.000
• Rate/Misc Adjustments	0.001	0.000	0.000	-	0.000
• Adjustments to Budget Year	-	-	290.353	-	290.353

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2021	FY 2022
Project: 9999: *Congressional Adds*		
Congressional Add: *Cyber Innovations in Classified Environments*	2.896	0.000
Congressional Add: *Cyber Soutions for Aviation Systems and Facilities*	6.757	0.000
Congressional Add: *Aviation innovative cyber solutions*	0.000	9.000
Congressional Add: *Cyber solutions in classified environments*	0.000	6.000
Congressional Add: *Warfare mission analysis in cyber contested environment*	0.000	5.000
Congressional Add: *Product lifecycle management for naval aviation*	0.000	2.000
Congressional Add: *Actionable analytics for reliable maintenance*	0.000	4.000
Congressional Add: *Advanced shipyard technologies*	0.000	6.000
Congressional Add Subtotals for Project: 9999	9.653	32.000
Congressional Add Totals for all Projects	9.653	32.000

Change Summary Explanation

Technical: Not applicable.

Funding:

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy	Date: April 2022
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The FY 2023 funding request was reduced by $3.308 million to account for the availability of prior year execution balances.

Project 2904 FY 2023 funding request was reduced by $2.243 million to account for the availability of prior year execution balances.

Project 3167 FY 2023 funding request was reduced by $0.552 million to account for the availability of prior year execution balances.

Project 3185 FY 2023 funding request was reduced by $0.103 million to account for the availability of prior year execution balances.

Project 9406 FY 2023 funding request was reduced by $0.410 million to account for the availability of prior year execution balances.

Schedule:

Project 2901 - ePS: Based on Limited Deployment (LD) delays and number of defects found during LD UAT, PMW 250's Contracting Officer issued a "Stop-Work Order" ordering the Contractor to "stop work" for Limited Deployment requirements. To assess alternatives, PMW 250 conducted market research for commercial alternative starting in July and determined none of the commercial solutions reviewed met the ePS requirements. PMW 250 continued market research and performed a Feasibility Study to assess the viability of a Non-Developmental Item (NDI) solution, Air Force's Contract Information Technology (CON-IT), developed by the USDA for the Air Force; it required minor modifications for use in the DON. It was concluded the NDI would be a solid foundation for the Navy's solution which is based on an open, modular, portfolio-based approach. The Navy procurement portfolio solutions will resolve for additional modular capabilities through iterative make, build, buy decisions engaging rapid-prototyping and evaluation resolving for requirements with the best solution for each balancing overall value with cost and speed to delivery.

Project 2905 (Navy Personnel and Pay (NP2): The Navy Personnel and Pay (NP2) Initial Operating Capability (IOC) has been delayed to January 2024. Consolidating the legacy business systems across the MyNavy HR Portfolio revealed more complexities than expected, driven by external interfaces for 30+ year old legacy systems with undocumented business processes and system alterations. In response, within the execution year, NP2 has refocused on more robust product development, integration, and technical / functional testing activities. This robust approach to end-to-end testing will mitigate risk to payroll accuracy during NP2 Go-Live.

FY 2023 funding increase reflects the fact that the FY 2022 President’s Budget request did not include out-year funding.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy											Date: April 2022	
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0605013N / *Information Technology Development*				Project (Number/Name) 2901 / *Navy Enterprise IT*			
COST ($ in Millions)	**Prior Years**	**FY 2021**	**FY 2022**	**FY 2023 Base**	**FY 2023 OCO**	**FY 2023 Total**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**Cost To Complete**	**Total Cost**
2901: *Navy Enterprise IT*	131.048	26.339	39.520	54.215	-	54.215	35.691	33.654	31.271	29.505	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Secretariat Offices

The Department of the Navy Chief Information Officer, Technology Division (DONCIO IT) provides Information Technology (IT), Information Assurance (IA), Information Management (IM), Document Management (DM), Records Management (RM), Knowledge Management (KM) and other related support services to the Secretary of the Navy (SECNAV), Chief of Naval Operations (OPNAV), the DON Secretariat, including political appointees, flag officers and senior executives. This support spans across over 24 organizations, covers nearly 6,000 individual customers, and countless worldwide end users. These services include complete life-cycle software support, software application development, implementation, and post development software support. DONCIO IT is heavily involved in the research and analysis of emerging trends and technologies for use throughout the Secretariat. DONCIO IT is also a valued partner and stakeholder in the development, review, and implementation of all DON and DoD IT related policies that affect the Secretariat members. Additionally, DONCIO IT astutely manages the telecommunication needs of the Secretariat and OPNAV staffs; to include providing state-of-the-art mobile devices, services and support, laptops to promote telework, and a host of other peripherals as needed when these executives travel abroad and around the country. DONCIO IT acts as a trusted agent for the review and approval of all IT related acquisitions across the Secretariat and provides expert guidance on the utilization of DON service contracts that support the purchase of software, hardware and other IT-related functions. DONCIO IT also manages and supports all Cyber Security functions for its Secretariat customers. Furthermore, DONCIO IT manages and supports all administrative requirements and functions of the NMCI/NGEN contract for all Secretariat customers. Database and application development support is required to test, evaluate, and modify current and new systems/capabilities for Secretariat customers.

Navy's Civilian Human Capital Strategy (HCS)

The HCS implements advance discoveries, initiates lines of efforts, conducts pilots, and completes business case analyses designed to improve the DON's ability to access, curate, and engage its workforce.

The HCS Task Force is responsible for designing, conducting, and evaluating limited-scope projects, introducing new or enhanced technologies to develop transformation recommendations for the larger DON enterprise. The HCS aims to streamline DON civilian human capital (HC) investments. This supports 18 Budget Submitting Offices (BSOs), which reported 352 HCS aligned programs and 152 technologies in FY21.

The HCS is designed to identify opportunities for enterprise-wide HC reform by leading operating concepts and technologies like artificial intelligence and cloud computing. The centralized approach to innovation will minimize the upfront cost of identifying solutions, achieving cloud and cybersecurity compliance, and reduce the cost of investments through scale purchases. Assessments and evaluations contribute to business case analysis reports with recommendations for the Assistant

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Secretary of the Navy (Manpower & Reserve Affairs) (ASN (M&RA)), Under Secretary of the Navy (UNSECNAV), and/or the Secretary of the Navy (SECNAV) regarding the broader implementation of technologies across the DON.

Funds are used for efforts, such as, technology configuration and automation technology solutions for HR transactions, artificial intelligence (AI), and the development predictive analytics and dashboards in the ADVANA/Jupiter platform. The Task Force evaluates the utility of such technologies in order to develop a data driven business case for wider implementation across the DON.
ELECTRONIC PROCUREMENT SYSTEM (ePS)

The electronic Procurement System (ePS) is the Department of the Navy's (DON) End-to-End (E2E) Contract Writing System (CWS). It will provide the Navy and Marine Corps contracting community with a full contract writing management capability and integrates with federally mandated systems, DON financial systems, and industry. The ePS will utilize Department of Defense (DoD) standards and support auditability. The ePS will address existing CWS challenges including outdated architecture, limited capabilities, scalability concerns, and existing obsolete legacy systems.

Full deployment of the ePS ensures compliance of the DON's contracting abilities with the following legislative mandates: the writing and management of all contracts must now occur in congressionally approved computer systems (Section 862 of the National Defense Authorization Act (NDAA) of 2013); the central management and oversight of all DoD business (10 U.S. Code (U.S.C.) Section 2222); and all contracting actions must be fully auditable and traceable (Section 1003 of the NDAA 2010 & Office of the Secretary of Defense (OSD) Financial Improvement and Audit Readiness (FIAR) Guidance).

The ePS will use DoD data exchange capabilities (e.g.; Procurement Data Standard (PDS) and Purchase Request Data Standard (PRDS)) in order to achieve standardized data interoperability with external systems. The Navy Enterprise Service Bus (NESB) serves as the hub to relay procurement data to various finance and other systems of record, such as Navy Enterprise Resource Planning (Navy ERP).

The result of successful ePS implementation will be a contracting workforce that conducts standardized, seamless, end-to-end contract management in a secure computing environment, issuing timely contracts that comply with all DoD/Federal laws, regulations, and policies.

NMCI ENTERPRISE SERVICE TOOLS(NEST)

Next Generation Enterprise Network (NGEN) utilizes the NMCI Enterprise Service Tools (NEST) as an integrated set of tools that facilitate the full service lifecycle management (SLM) of customer IT service requests , including RAPT(Requirement to Award Process Tool), NET (NMCI Enterprise Tool), and Enterprise Reporting. NEST is considered a Government Owned/Contractor Operated defense business system (DBS) that has a valid ATO.

WARFIGHTING CAPABILITY ASSESSMENT - FORCE LEVEL INTEGRATION (FLINT)

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FLINT is a digital decision support solution that enables mass exploration of POM alternatives, positioning the Navy's POM programing process to evolve from a subjective human capital and document-centric process to a data driven, model-centric process that leverages automated frameworks and computing to serve as the analytical underpinning for developing the POM. FLINTs mission is to integrate the numerous and disparate tools, databases, models, simulations, analyses, and subject matter expertise necessary to facilitate and optimize Navy POM decision making. FLINT provides senior leadership with programming options that capture the fiscal trade-offs and their consequences to warfighting effectiveness when measured against defined criteria and enables relative valuation across all POM requirements.

LIVE, VIRTUAL, AND CONSTRUCTIVE (LVC) TRAINING DEVELOPMENT

The Live, Virtual, and Constructive (LVC) Training program funds will be used to develop and deliver Information Warfare (IW) training in a scalable, Navy Continuous Training Environment (NCTE) compliant capability in a controlled environment. This effort builds upon existing trainers (Fleet Synthetic Training Electronic Warfare Trainer and the Naval Research Development and Engineering labs) to provide continuous development and iterations introducing new technologies and methodologies to advance the IW capabilities in a Shore Tactical Level environment to address the continually evolving threats.

LVC includes fleet requirements to integrate realistic IW capabilities and effects - specifically Electronic Warfare (EW) and Meteorology and Oceanography (METOC) inputs at the GENSER and TS/SCI level. This capability enables individual units and CSG/ARG/ESGs to exercise integrated kinetic and non-kinetic capabilities at the Shore Tactical Level utilizing the Maritime Operation Center (MOC) to include operations/intelligence fusion required to overcome Great Power Competition threats. Additionally, LVC facilitates classified IW TTP development (including Signals Intelligence / Counter - Intelligence, Surveillance, and Reconnaissance (SIGINT / C-ISR)) in a closed network, minimizing the potential for compromise to adversaries. Integration of a realistic IW virtual capability into LVC events via NCTE supports holistic readiness through force generation of effectively trained, resilient IW forces.
The key pieces to integrate IW capabilities into current and future LVC Training Environments include:
- Leverage existing trainers (e.g. Naval Research, Development and Engineering (NRDE) laboratories and Electronic Warfare (EW) Fleet Synthetic Trainer) to employ current virtual IW capabilities (including METOC, and SIGINT/C-ISR) via Navy Enterprise Tactical Training Network (NETTN) to provide distributed training for Maritime Operation Center Shore Tactical Level.

- Virtualize existing IW training tools, such as "Carrier Hunt" or "Gator Hunt" using serious gaming technologies.

- Develop additional unit level and team training vignettes, scenarios, and curricula based on real-world use cases to provide "reps and sets" and build IW critical thinking skills and tactical proficiency.

- Utilize authoritative standards, such as NCTE Interoperability Standards (NIS) as means to guide future training development.

- Provide Warfare Development Centers the capability to evaluate blue force doctrine and TTP capabilities and limitations in a threat representative environment against replicated realistic opposing force/adversary TTPs to generate viable training events and scenarios.

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NEXT GENERATION ENTERPRISE NETWORK (NGEN)NETWORK ARCHITECHTURE DESIGN AND TESTING

NGEN is utilizing a rapid systems engineering approach, leveraging leading industry experts to design and execute a transformative architecture across the spectrum of services which drives towards the design of the Navy Digital Platform and digital business and service delivery. The Navy Digital Platform (NDP) is a modern digital platform that encompasses optimal cloud consumption, domain singularity, mobility, resilience, and enhanced security. The modernized platform is on parity with industry, which is ready to meet changing mission needs and achieve competitive Naval advantage through a constant state of Information Readiness. Navy's Digitization Journey is dependent upon the Navy's Enterprise Network. The modernized platform will meet today and future mission requirements. This multi-year effort and investment is needed to finalize and adjudicate a Target Enterprise Architecture (TEA), identify obsolescent technologies associated with Navy network platforms, and aid in the integration of users and services, implement enabling business processes and service management frameworks, and provide sustaining activity guidance for future investment areas across all classification levels and operating environments.

NGEN will implement a new network architecture design, a technical enterprise architecture that integrates rationalized users and services, implements enabling business processes and service management frameworks and provides guidance for future investment areas across all classification levels and operating environments. This includes network modeling & simulation, performance-based prototypes and applied research in future technologies affecting network architectures to advance the state of networks across all domains.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: SECNAV Projects IT System Modernization	0.482	0.664	0.594	0.000	0.594
Articles:	-	-	-	-	-
FY 2022 Plans: Continue role as PSO for the RMF Assessment and Authorization requirements of CFMS, which ensured CFMS maintained its ATO on the Navy network. Continue Database development and modification for legacy, current, and future systems. Continue providing Database Administrator development for Oracle and Microsoft Structured Query Language (MS SQL) based systems and applications. Application Developer support to modify current systems and develop new systems/capabilities for Secretariat customers.					
FY 2023 Base Plans: Continue role as PSO for the RMF Assessment and Authorization requirements of CFMS, which ensured CFMS maintained its ATO on the Navy network. Continue Database development and modification for legacy, current, and future systems. Continue providing Database Administrator development for Oracle and Microsoft					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Structured Query Language (MS SQL) based systems and applications. Application Developer support to modify current systems and develop new systems/capabilities for Secretariat customers. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 decrease of $0.070M reflects lower costs for the SECNAV IT System Modernization contract.					
Title: Civilian Human Capital Strategy	0.000	1.779	1.403	0.000	1.403
Articles:	-	-	-	-	-
FY 2022 Plans: - Evaluated and selected commercial recruitment targeting tools based on pilot program. Purchased licenses to prepare for implementation. - Configured digital human resources automation (AUTONOA) in preparation for wider implementation across the Department of the Navy enterprise. - Expanded configuration and preparation of the ADVANA Jupiter platform to support DON HR predictive people analytic dashboard for implementation. - Expanded utilization of Learning Management System (LMS) for broader use across the DON beyond the SYSCOM communities, based on pilot learnings within Naval Sea System Command (NAVSEA), Naval Air Systems Command (NAVAIR), NAVSUP, and other targeted functional communities. ***FY 2023 Base Plans:*** - Continue to configure and implement human resources automation (AUTONOA) in support of DON wide implementation. - Deploy DON enterprise solution for Learning Management System. - Implementation of predictive analytics dashboard. - Implementation of Artificial Intelligence (AI)/Automation for recruitment contact management technology solution. - Explore technology for Off Boarding pilot recommendations. - Explore DON wide Talent Management solutions. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:***					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
FY23 decrease of $0.376M is due to pilots transitioning from configuration to preparations for implementation.					
Title: Electronic Procurement System (ePS)	23.638	21.303	19.959	0.000	19.959
Articles:	-	-	-	-	-
Description: Funding required for the Electronic Procurement System (ePS) to provide support for configuration, integration, testing, training, deployment and implementation of the system. ***FY 2022 Plans:*** Due to the pause with the system integrator, plans have pivoted to focus on new agile-based portfolio approach. ePS will use an Agile software development methodology with a combined team of functional business owners, users, program managers, systems engineers and systems integrators, software developers and logisticians to conduct the work effort in Agile scrums. As the scrums progress through Agile sprints, the scrum team will adjust the work effort to the needs of the business owners and the evolving technical solution. ePS will employ DevSecOps while producing the required capabilities using an integrated Agile team as described above to conduct development (Dev) together with cybersecurity (Sec). The same team conducting development operates and supports the system (Ops). DevSecOps rapidly and iteratively delivers capability via recurring sprints and planned quarterly releases. Utilizing these developmental techniques, ePS will start with a prototype that will evolve into the ePS minimal viable capability release (MVCR) which will meet the SWP requirement for operational use of the system within one year of obligation of funds. MVCR deployment is scheduled by Q2 FY23 based on a contract award for a Portfolio Coordinator to begin integration, development and hosting activities required for the MVCR by May 2022. The MVCR will consist of the Core Contracting Module (CCM) which will provide simplified acquisitions functionality plus any additional capabilities that are designed and developed with the business owners during the prototype and MVCR development. ePS plans to leverage and prepare the Marine Corps Business Operations Support Services (MCBOSS) to provide the cloud-based infrastructure and technology set to support ePS development, testing, and production. MCBOSS is an accredited application factory of scalable applications and services for mission owners and users. MCBOSS provides software development teams access to accredited platforms (ex: Appian), supported by a Secure Cloud Computing Architecture and an integrated suite of automated Continuous Integration (CI)/					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Continuous Deployment (CD) pipeline tools. MCBOSS will provide the ePS development team access to common services hosted in an environment with enterprise governance. ***FY 2023 Base Plans:*** ePS will complete required documentation for the authority to operate (ATO) and set-up the ePS production environment. These efforts support ePS's plans to deploy MVCR by Q2 to an initial business owners. Based on the current roadmap and capability assumptions, ePS expects to add approximately 200 new business users at quick and regular intervals upon capability releases, with an ultimate end-user count expected to be ~16,000 at FOC. R1.1 is planned to include Purchase Request (PR) and Acquisition Planning functionality. R1.2 is planned to include Vendor Engagement and Contract Clause capabilities. MVCR will include the minimal interfaces required to get a contract through the Procurement to Pay (P2P) process System for Award Management (SAM), Navy Enterprise Resource Planning (ERP), WHF PDS pre validation Tool, WHF DON Procurement ToolKit, Global Exchange Service (GEX), Electronic Document Access (EDA), DPC Clause Logic Service (CLS), Mechanization of Contract Administration Services (MOCAS), and OSD Validation Services. ePS will continue its market research and capability assessments by researching additional interfaces including Defense Agency Initiatives (DAI) Enterprise Resource Planning (ERP), Shipyard and Management Information System Mission Funded Cost (SYMIS MF COST), Material Access, Technology Mission Funded (MATMF), NMCI Enterprise Service Tool (NEST), Command Financial Management System (CFMS), and others. These results and other business user required capabilities will be added to the ePS Backlog. The ePS backlog execution will be based on the results of the ePS CON-IT Feasibility Study and additional backlog items from the prototype and MVCR development. The ePS Backlog represents the ePS business user's requirements and will be continuously updated and prioritized by the business users in accordance with Agile and Scrum processes. The ePS Backlog will be used to update the ePS roadmap and plan for FY24 releases. ***FY 2023 OCO Plans:***					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
N/A					
FY 2022 to FY 2023 Increase/Decrease Statement: FY23 decrease of $1.445M due to transition to an agile development methodology and re-use of Air Force developed modules bringing efficiencies to the new strategy.					
Title: NMCI Enterprise Service Tools (NEST)	1.686	2.151	0.997	0.000	0.997
Articles:	-	-	-	-	-
Description: Key objectives for Network Management - NMCI Enterprise Service Tools (NEST): -The NMCI Enterprise Service Tools (NEST) is an integrated set of tools that facilitate the full service lifecycle management (SLM) of customer service requests for IT services, including RAPT(Requirement to Award Process Tool), NET (NMCI Enterprise Tool), TOM (Task Order Management), and Enterprise Reporting. NEST is considered a Government Owned/Contractor Operated defense business system (DBS) that has a valid ATO. -NEST is officially the single contract writing system for the DON's (i.e. all of Navy, including OCONUS, and USMC) NGEN-R contracts. NEST absorbed historically vendor-owned functionality and integrated the DoD's compliance standards, bringing NGEN-R into the DoD's Procure-to-Pay (P2P) space. Part of the requirement of adhering to P2P standards involved interfacing with 7+ systems. The team is continuously interfacing with new systems to comply with compliance mandates and Financial Acquisition and Regulation (FAR) clauses. -Serving as a NGEN ordering tool for Navy and USMC, NEST serves an extensive user base of more than 3,000 users and services 1.1M+ Navy and USMC service members globally. With this many users, NEST handles a large amount of financial transactions. -The NEST team serves as a centralized link between enterprise and project level activities, while we maintain and operate all NEST functions, including O&M support and strategic PMO work. Some of those activities include but are not limited to: executive guidance and brief support, end-to-end software development lifecycle implementation in accordance with CMMI (Capability Maturity Model Integration) level 5, prioritization of program missions/objectives, RMF/IA support/process definition, risk management, and FY planning & road mapping.					
FY 2022 Plans: NEST is expediting compliance with the Standard Line of Accounting format for obligations modernizing user interface across NEST applications for consistency. NEST is generating PDS within MuleSoft to accommodate					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
frequent PDS schema upgrades and pursuing re-accreditation of the NEST ATO package which allows for expedited interface updates with data partners via the MuleSoft middleware. In addition, NEST is modularizing the Task Order Management (TOM) functionality of NET into a more robust COTS solution to accelerate future delivery, while increasing application scalability and flexibility for future requirements. As a contract writing system, NEST must adhere to DoD policy for standardization of acquisition and finance activities. The system will add the ability to conduct an electronic funds validation, aka funds check, with the funding system(s) prior to task order award to ensure continued availability of each accounting citation on the contract. NEST support will also focus on engineering and testing for interface cutover to DAI for USMC NGEN-R task order obligations due to urgent cutover timeline. ***FY 2023 Base Plans:*** NEST support will prioritize the implementation of Navy ePS interface to support NMCI ordering future state, and will finalize remaining requirements and end-state integration impacting the database post NGEN-R contract award and supported end-user training. NEST will also support the validation of amendments to the mandated DoD/DON procurement policies and upgrade the database accordingly, (e.g. additional system handshake requirements). NEST will begin analysis and implementation of COTS solutions for a contract management module to improve ability to ingest and manage base contract details that feed into NEST ordering. This would reduce manual administration while increasing the standardization and use cases for NEST. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 decrease of $1.154M is driven by implementation of Navy ePS interface to support NMCI ordering future state. The focus is to enhance deployed functionality while providing IT service lifecycle management processes post NGEN-R contract (EUHW and SMIT) awards.					
Title: Fleet Architecture Integration Tool (FAIT)	0.533	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans:					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
In FY22, FAIT requirements are subsumed by the Warfighting Readiness Assessments - Force Level Integration solution. ***FY 2023 Base Plans:*** N/A ***FY 2023 OCO Plans:*** N/A					
Title: Live, Virtual and Constructive (LVC) Training Development	0.000	8.451	3.517	0.000	3.517
Articles:	-	-	-	-	-
FY 2022 Plans: Live, Virtual, and Constructive (LVC) Training will leverage existing government contracts to provide integrated test facility, scenario development and experimentation on Joint Cognitive Operational Research Environment (JCORE) platform and Virtual Wizard Capability Build - Next Generation Threat Simulator (NGTS) platform interface/experimentation. -Live, Virtual, and Constructive (LVC) Scenario Development and Training Event Execution leverages Naval Research, Development and Engineering (NIWC NRDE) environment to provide 8 training events; 2 Warfare Tactics Instructor (WTI), 2 Carrier Strike Group (CSG), 2 Amphibious Readiness Group (ARG) and 2 Experimentation/Validations; and building Information Warfare (IW) training scenarios to integrate into OFRP training exercises. -Warrior Integration builds a new app store bridging IW scenarios, curricula, tabletop exercises and war-gaming between Joint Cognitive Operations Research Environment (JCORE) architecture and end users under an engineering services contract with Massachusetts Institute of Technology (MIT) Lincoln Labs. -Virtual Wizard / Next Generation Threat Simulator (NGTS) provides NGTS and QUEST software for WTI training and tactics, techniques and procedures (TTP) development and validation; high NCTE compliant "sand box" to test, train and validate IW TTPs; and modeled environment to support vignettes focused on developing existing and emerging IW capabilities. ***FY 2023 Base Plans:*** Funding will continue and complete efforts to develop and integrate capabilities to Naval Research, Development and Engineering (NRDE) lab to support Information Warfare (IW) into the Fleet Synthetic Training (FST) environment. This includes analyzing technical requirements and training requirements and utilizing the results of the analyses to add additional Information Warfare (IW) Fleet Synthetic Training (FST) capabilities in the					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Naval Research, Development and Engineering (NRDE) laboratory allowing the IW Enterprise to integrate into existing FST events with other warfare domains. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 decrease of $4.934M is associated with progress on efforts to provide integrated test facility, scenario development and experimentation on Joint Cognitive Operational Research Environment (JCORE) platform and Virtual Wizard Capability Build - Next Generation Threat Simulator (NGTS) platform interface/experimentation.					
Title: Warfighting Readiness Assessment - Force Level Integration (FLINT)	0.000	5.172	2.561	0.000	2.561
Articles:	-	-	-	-	-
FY 2022 Plans: Force Level Integration (FLINT) is currently designated a pilot until Q2FY22. FLINT will leverage the Software Acquisition Pathway (SWAP) Pilot to Production approach to ensure rapid development and deployment of software. FLINT is currently in the Software Acquisition Pathway, Planning Phase. FLINT will leverage agile software development methodologies, DevSecOps, and human-centered design processes to iteratively deliver software that will allow the program to meet OPNAV's priority needs. The program will obtain an Authority to Operate (ATO) in Q4FY22. In order to optimize POM investment decisions, the first step in the development process requires a data gap analysis to identify existing data and determine where there are information gaps of what would be beneficial to the POM decision process. This effort includes identifying and understanding data relationships and dependencies of various POM dimensions, such as warfighting capability, force capacity, fleet readiness, cost, and risk. As data sources are identified, digitized, and evaluated incrementally, they will be incorporated in a larger data architecture plan and utilized to expand FLINT's capabilities. Machine Learning Enhancements will derive from perpetual advancements of the FLINT tool. FLINT will use an iterative, human-centered design process to define a Minimum Viable product (MVP). FLINT's program strategy for achieving the first delivery of operational software for user feedback (Minimum Viable Product (MVP)) encompasses project management, systems engineering, acquisition and contractor support, data science expertise, cyber security accreditation, cloud migration, testing and evaluation, as well as non-material solution activities of change management, training, and policy development.					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
FY22 funding will continue engineering and agile development of the development environment and migrate to AWS Cloud. -FLINT Data Gap Analysis -FLINT Model Evaluation and Selection -FLINT Automation and Machine Learning Enhancements -FLINT Authority to Operate -FLINT Data Digitization -FLINT Data Architecture and Engineering -FLINT Minimum Value Product (MVP)					
FY 2023 Base Plans: FLINT will enter in the Software Acquisition Pathway, Execution Phase in Q1FY23. FLINT will leverage agile software development methodologies, DevSecOps, and human-centered design processes to iteratively deliver software that will allow the program to meet OPNAV's priority needs. Building off of the development from FY22, data sources will continue to be identified, digitized, and evaluated incrementally, and will be incorporated in a larger data architecture plan and utilized to expand FLINT's capabilities. FLINT will use an iterative, human-centered design process to define a minimum viable capability release Analytical Minimal Value Capability Release (MVCR). The MVCR delivers initial POM capabilities to enhance mission outcomes for the Operational Sponsor OPNAV N9IW. If the MVP version of the software is determined sufficient to be fielded for operational use, the MVP will become the MVCR. FY23 funding will continue agile development of the DevSecOps production environment. -FLINT Model Evaluation and Selection -FLINT Automation and Machine Learning Enhancements -FLINT Data Digitization -FLINT Data Architecture and Engineering -FLINT Minimum Value Product (MVP) -FLINT Warfighting Capability Models					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
-FLINT Capacity Models -FLINT Readiness Models ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 decrease OF $2.611M due to the transition of FLINT from Pilot to production and will result in FLINT development activities gradually decreasing, causing funding to become proportionally more OMN than RDTEN.					
Title: NGEN Network Architecture Design and Testing	0.000	0.000	25.184	0.000	25.184
Articles:	-	-	-	-	-
Description: Key objectives for NGEN Network Architecture Design and Testing: - Transport, Compute and Storage Architecture and Design: Mission is to deliver a modern digital domain, on parity with industry, which is ready to meet changing mission needs and achieve competitive advantage through a constant state of information readiness. This investment is to align Naval Digital Platform design and implementation to the Navy's Technical Enterprise Architecture (TEA) that replaces obsolete technologies associated with NMCI and ONE-Net platforms, integrate rationalized users and services, implement enabling business processes and service management frameworks and provide guidance for future investment areas across all classification levels and operating environments. -Core Application Services Architecture and Design: Refactor core applications and services to transition to future state as a component of the move to M365 Software as a Service (SaaS) environment. -Integrated Navy Operations Command and Control System (INOCCS) Framework and Fleet Design for DODIN Operations: The INOCCS framework provides the foundation for an Operational Support System (OSS) that enables DoDIN Ops, Defensive Cyberspace Operations (DCO), cybersecurity, and informs Offensive Cyberspace Operations (OCO). Testing will include conducting technical comparisons of vendor products required to upgrade the network (AoA activities). Participating in technical exchange meetings related to OSS, service and resource management, data analytics and visualizations, DCO, defining cyberspace concept of operations, documenting an INOCCS reference architecture, information system security engineering in support of receiving an Authority to Operate, and documenting implementation and transition strategies for INOCCS.					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
FY 2022 Plans: N/A ***FY 2023 Base Plans:*** NGEN will commence engineering development to implement a new network architecture design; a technical enterprise architecture that integrates rationalized users and services, implements enabling business processes and service management frameworks and provides guidance for future investment areas across all classification levels and operating environments. In FY23 NGEN will: -Conduct network modeling & simulation, review performance-based prototypes, and institute applied research in future technologies affecting network architectures to advance the state of network across all domains. -Commence testing and evaluation for transport, compute and storage architecture and design in a lab or at a pilot site to establish baseline for the SMIT vendor. Additionally, will commence engineering support to develop a future state architecture in a lab setting that will leverage existing infrastructure on premise applications and services to ensure a seamless transition between managed on premise and managed-off premise user access to M365 capabilities. -Develop implementation and transition strategies for INOCCS by commencing INOCCS testing to include technical comparisons of vendor products required to upgrade the network (AoA activities),coordinating technical exchange meetings related to OSS, service and resource management, data analytics and visualizations, and DCO, providing information system security engineering support to define cyberspace concept of operations that will document an INOCCS reference architecture to receive an Authority to Operate. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 increase will provide engineering support to conduct network modeling & simulation, develop performance-based prototypes and conduct applied research in future technologies affecting network architectures in order to advance the state of networks across all domains in support of the new network architecture design.					
Accomplishments/Planned Programs Subtotals	26.339	39.520	54.215	0.000	54.215

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C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• 4A3M: *Civilian Human Capital Strategy*	0.000	3.900	7.990	-	7.990	8.834	9.459	10.271	10.506	Continuing	Continuing
• OPN LI 8106: *Command Support Equipment - LVC*	0.000	1.876	1.000	-	1.000	0.000	0.000	0.000	0.000	0.000	2.876

Remarks

D. Acquisition Strategy

DONCIO IT will award option year 1 of the cost-plus-fixed-fee contract in September 2022, via the Naval Supply Systems Command (NAVSUP).

HCS: Programs will use existing government contracting vehicles and competitive processes, where appropriate, to configure extant private-sector solutions to meet requirements and buy licenses to access those products.
ELECTRONIC PROCUREMENT SYSTEM (ePS)
The ePS program awarded a 10-year hybrid contract to a single System Integrator (SI). The vendor chosen was CGI Federal. CGI will provide required software licenses and required activities for program management, maintenance, systems engineering, design and interface development, testing, deployment, training, and support documentation. This includes all efforts through Full Deployment (FD) and continued sustainment support during the 10-year period of performance.

The ePS will leverage Commercial Off-the-Shelf (COTS) products and capabilities, and is anticipated to consist of three components to achieve full end-to-end capability: 1) a COTS Contract Writing System (CWS) solution; 2) a COTS middleware interfacing capability, known as an Enterprise Service Bus (ESB); and 3) Gap-closure methodologies (e.g.; Business Process Management tools (BPM), Business Process Re-Engineering (BPR), or COTS enhancements).

The Department of the Navy (DON) has been working with the SI for more than 27 months to deliver the Electronic Procurement System (ePS), a commercial off-the-shelf (COTS) contract writing solution to manage the entire life cycle of defense contracting. The goal is to provide a fully integrated end-to-end contract writing solution that will provide the Navy and Marine Corps with full contract writing management capability and support integration with federally mandated systems, DON financial systems and industry.

The ePS program experienced several technical and schedule challenges that led the Navy to pause the current work. This pause will allow the DON to review approaches, to include agile-based development constructs, to best meet the DON contract writing system requirements. Software capabilities consistently evolve and the Navy wants to ensure ePS remains a world-class contract writing system into the future. The pause will allow us to evaluate new developments, sources and capabilities that may improve future performance.

LIVE VIRTUAL AND CONSTRUCTIVE (LVC) TRAINING DEVELOPMENT

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LVC Training will leverage existing government contracts through NIWC Pacific, AIRFORCE and NAVAIR to provide integrated test facility, scenario development and experimentation on JCORE platform and Virtual Wizard Capability Build - Next Generation Threat Simulator (NGTS) platform interface/ experimentation.

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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development (Modernization)	C/FP	CACI : Chantilly, VA	4.555	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Contractor Engineering Support (DONCJIS) (Modernization)	SS/T&M	Interimage Inc. : Manassas, VA	1.272	0.000		0.000		0.000		-		0.000	0.000	1.272	-
Software Development (Modernization)	C/FP	Dell Marketing LP : Round Rock, TX	1.938	0.000		0.000		0.000		-		0.000	0.000	1.938	-
Software Development (CLEOC) (Modernization)	C/FP	NSA : Various	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	-
SYSTEM Moderization (Modernizaation)	WR	NIWC LANT : CHARLESTON, SC	4.026	0.000		0.000		0.000		-		0.000	0.000	4.026	-
CORB SYSTEM Modernization (Modernization)	WR	NIWC LANT : CHARLESTON, SC	2.002	0.000		0.000		0.000		-		0.000	0.000	2.002	-
Software Development (Modernization)	C/CPFF	Booz Allen Hamilton (BAH) : McLean, VA	0.473	0.282	Sep 2021	0.464	Sep 2022	0.394	Sep 2023	-		0.394	0.000	1.613	-
Software Development (Modernization)	C/CPFF	SAIC : Reston, VA	1.039	0.000		0.000		0.000		-		0.000	0.000	1.039	-
HCS Artificial Intelligence	TBD	TBD : TBD	0.000	0.000		0.840	Jul 2022	0.927	Mar 2023	-		0.927	0.000	1.767	-
HCS Digital HR	MIPR	Rock Island Arsenal : Rock Island, IL	0.000	0.000		0.800	May 2022	0.420	Dec 2022	-		0.420	0.000	1.220	-
HCS Predictive Analysis	TBD	TBD : TBD	0.000	0.000		0.100	Jul 2022	0.015	Jan 2023	-		0.015	0.000	0.115	-
HCS Learning Management System	TBD	TBD : TBD	0.000	0.000		0.039	Jun 2022	0.041	Nov 2022	-		0.041	0.000	0.080	-
ePS Data Transition Strategy	Various	NAVSUP BSC : Mechanicsburg, PA	1.702	0.000		0.000		0.000		-		0.000	0.000	1.702	-
ePS NESB Data Mapping	C/FP	BOOZ ALLEN : Tysons Corner, Va	7.150	0.000		0.000		0.000		-		0.000	0.000	7.150	-
NESB Configuration and Validation	C/FP	NAVWAR : San Diego, CA	7.371	0.000		0.000		0.000		-		0.000	0.000	7.371	-
Contract Writing System (ePS)	C/FP	CGI Federal : Fairfax, VA	26.261	12.510	Mar 2021	0.000		0.000		-		0.000	0.000	38.771	-

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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NERP Interface Analysis (ePS)	Various	NAVWAR : San Diego, CA	2.409	0.000		0.250	Dec 2021	0.000		-		0.000	0.000	2.659	-
Fleet Architecture Integration Tool (FAIT)	Various	FFRDC/Various : Arlington, VA	0.000	0.533	Nov 2020	0.000		0.000		-		0.000	0.000	0.533	-
LVC Scenario Development and Training	C/FFP	NAVWAR NIWC PAC : San Diego, CA	0.000	0.000		1.500	Dec 2021	0.517	Dec 2022	-		0.517	0.000	2.017	-
LVC Warrior Integration	FFRDC	NAVAIR : Patuxent River, MD	0.000	0.000		2.651	Dec 2021	1.000	Dec 2022	-		1.000	0.000	3.651	-
LVC Virtual Wizard / Next Generation Threat Simulator (NGTS)	WR	NAVAIR : Patuxent River, MD	0.000	0.000		2.800	Dec 2021	1.500	Dec 2022	-		1.500	0.000	4.300	-
Force Level Integration (FLINT)	FFRDC	Georgia Tech Research Institute : Atlanta, GA	0.000	0.000		5.172	Mar 2022	2.561	Mar 2023	-		2.561	0.000	7.733	-
Agile System Integrator Development	Various	Various : Various	0.000	0.000		6.266	May 2022	7.703	May 2023	-		7.703	Continuing	Continuing	Continuing
CON-IT System Development and Updates	Various	Various : Various	0.000	2.500	Jun 2021	0.332	Jun 2022	0.332	Jun 2023	-		0.332	Continuing	Continuing	Continuing
		Subtotal	60.698	15.825		21.214		15.410		-		15.410	Continuing	Continuing	N/A

Remarks

Database development and modification for legacy, current, and future systems.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Acquisition Documentation (ePS)	Various	Various : Various	3.734	0.000		1.000	Oct 2021	0.000		-		0.000	0.000	4.734	-
Cost Analysis (ePS)	C/CPFF	NAVWAR : San Diego, CA	1.414	0.189	Jun 2021	0.250	Nov 2021	0.000		-		0.000	0.000	1.853	-

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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering (ePS)	Various	Various : Various	22.320	1.682	Mar 2021	3.121	Mar 2022	1.500	Mar 2023	-		1.500	Continuing	Continuing	Continuing
Logistics Analysis (ePS)	Various	NIWC LANT : Charleston, SC	5.044	0.450	Dec 2020	0.750	Oct 2021	0.750	Oct 2022	-		0.750	Continuing	Continuing	Continuing
Requirements Validation (ePS) - Small Business set aside	C/FFP	NAVWAR : San Diego, CA	1.500	0.000		0.000		0.000		-		0.000	0.000	1.500	-
Project Management/ Implementation (ePS)	Various	Enterprise Horizion : San Francisco, CA	3.536	0.000		0.000		0.000		-		0.000	0.000	3.536	-
ePS Engineering Services - Small Business set aside	Various	Bowhead : Alexandria, VA	3.287	0.170	Jul 2021	0.000		0.000		-		0.000	0.000	3.457	-
ePS Testing and Validation/ Architecture Tool	Various	NSWC Dahlgren : Dahlgren, VA	0.100	0.000		0.000		0.000		-		0.000	0.000	0.100	-
System Engineering Support (NEST)	C/CPFF	Deloitte : Rosslyn, VA	17.078	1.686	Nov 2020	2.151	Jul 2022	0.997	Jul 2023	-		0.997	0.000	21.912	-
(ePS) Project Management/ Implementation	C/CPFF	Chenega : Chesapeake, VA	1.254	0.650	Sep 2021	0.000		0.000		-		0.000	0.000	1.904	-
Cloud Services (ePS)	C/CPFF	NIWC LANT : Charleston, SC	4.417	2.770	Jun 2021	4.357	Jun 2022	4.357	Jun 2023	-		4.357	0.000	15.901	-
ePS engineering services	C/CPFF	Falconwood : Arlington, VA	1.683	1.226	May 2021	0.000		0.000		-		0.000	0.000	2.909	-
Appian Licenses	C/CPFF	Appian : Mclean, VA	0.000	0.000		1.390	Jun 2022	1.390	Jun 2023	-		1.390	Continuing	Continuing	Continuing
Portfolio Licenses	Various	NAVWAR : San Diego, CA	0.000	0.000		0.334	Jul 2022	0.334	Jul 2023	-		0.334	Continuing	Continuing	Continuing
Design Engineering Support (NGEN)	WR	NIWC PAC : San Diego	0.000	0.000		0.000		8.487	Mar 2023	-		8.487	0.000	8.487	-
Design Engineering Support (NGEN)	WR	NIWC LANT : Charleston, SC	0.000	0.000		0.000		2.283	Feb 2023	-		2.283	0.000	2.283	-
Design Engineering Support (NGEN)	C/CPFF	Booz Allen Hamilton : McLean, VA	0.000	0.000		0.000		5.124	Dec 2022	-		5.124	0.000	5.124	-

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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Design Engineering Support (NGEN)	C/CPFF	GTRI : Arlington, VA	0.000	0.000		0.000		5.160	Jan 2023	-		5.160	0.000	5.160	-
Design Engineering Support (NGEN)	C/CPFF	2Twelve : Reston, VA	0.000	0.000		0.000		4.130	Apr 2023	-		4.130	0.000	4.130	-
		Subtotal	65.367	8.823		13.353		34.512		-		34.512	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	C/CPFF	Booz Allen Hamilton (BAH) : McLean, VA	0.200	0.200	Sep 2021	0.200	Sep 2022	0.200	Sep 2023	-		0.200	0.000	0.800	-
Testing Preparations (ePS)	C/FFP	NIWC LANT : Charleston, SC	0.800	0.000		0.000		0.000		-		0.000	0.000	0.800	-
Software Hosting (ePS)	C/FP	NAVWAR : San Diego, CA	0.815	0.000		0.000		0.000		-		0.000	0.000	0.815	-
Testing (ePS)	C/FP	OPTEVFOR : NORFOLK,VA	1.212	0.544	Aug 2021	0.590	Aug 2022	1.000	Aug 2023	-		1.000	0.000	3.346	-
Testing (ePS)	MIPR	JITC : Ft. Huachuca, AZ	0.424	0.424	Aug 2021	0.424	Aug 2022	0.394	Aug 2023	-		0.394	0.000	1.666	-
Testing/Cyber	C/CPFF	Falconwood : Arlington, VA	1.032	0.523	May 2021	0.000		0.000		-		0.000	0.000	1.555	-
Testing/Cyber	C/CPFF	Various : Various	0.000	0.000		0.600	Nov 2021	0.600	Nov 2022	-		0.600	0.000	1.200	-
Testing and Validation	Various	Various : Various	0.000	0.000		1.000	Nov 2021	1.000	Nov 2022	-		1.000	0.000	2.000	-
		Subtotal	4.483	1.691		2.814		3.194		-		3.194	0.000	12.182	N/A

Remarks

Assessment and Authorization (A&A) requirements.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2901 / *Navy Enterprise IT*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ePS Program Support	C/FFP	PEO MLB : Arlington, VA	0.500	0.000		0.639	Oct 2021	0.599	Oct 2022	-		0.599	Continuing	Continuing	Continuing
LVC Program Management	C/FFP	NIWC PAC : San Diego, CA	0.000	0.000		1.500	Dec 2021	0.500	Dec 2022	-		0.500	0.000	2.000	-
		Subtotal	0.500	0.000		2.139		1.099		-		1.099	Continuing	Continuing	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	131.048	26.339		39.520		54.215		-		54.215	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2901 / *Navy Enterprise IT*

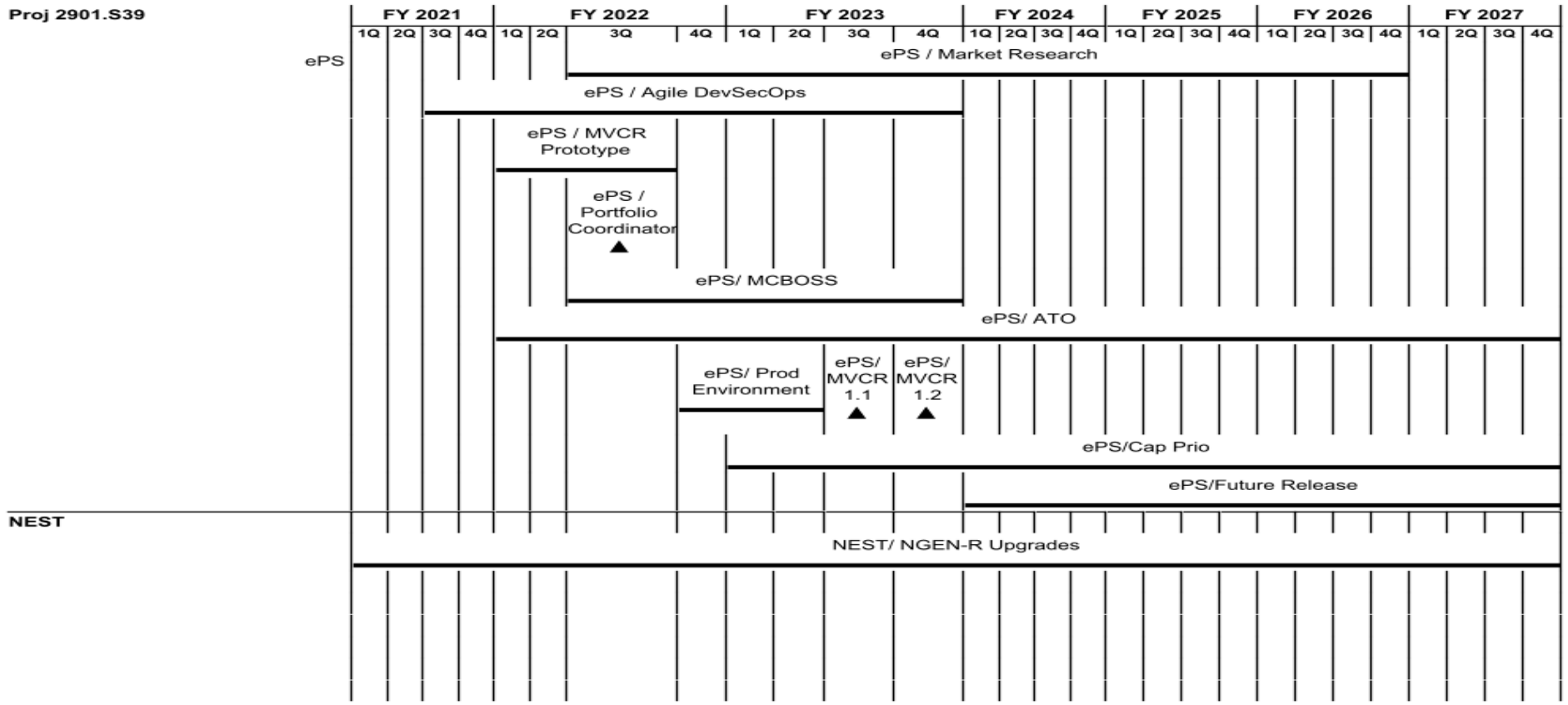

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2901 / *Navy Enterprise IT*

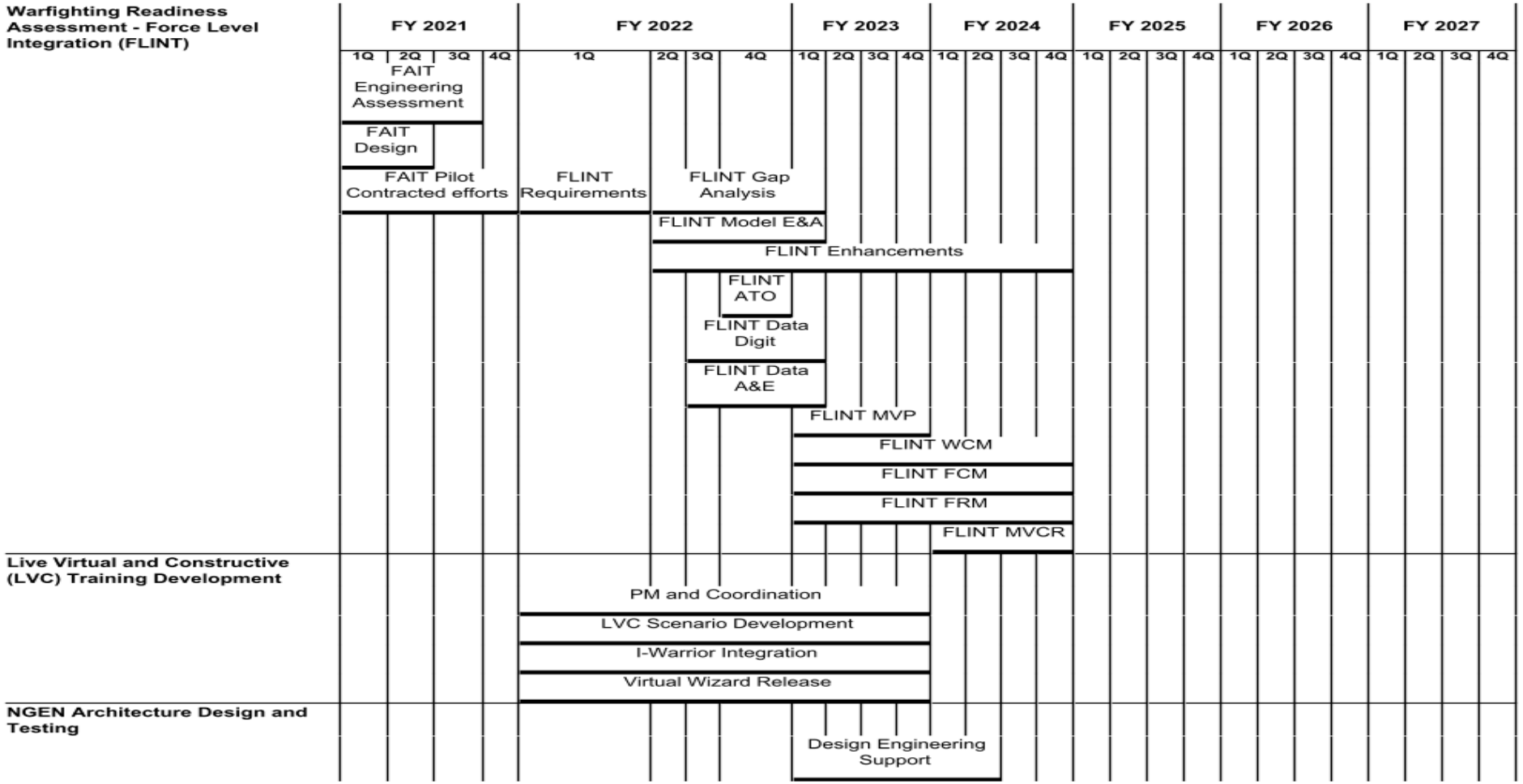

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2901 / *Navy Enterprise IT*

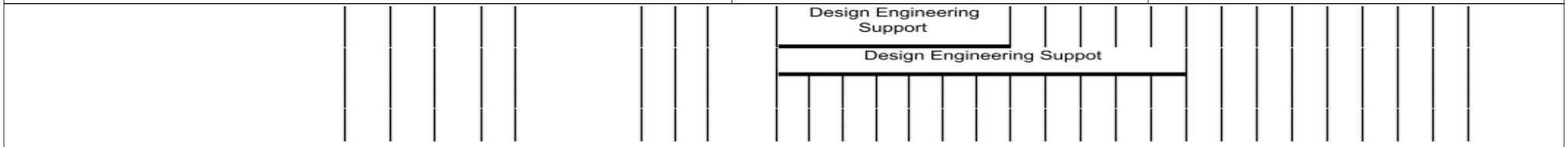

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2901 / *Navy Enterprise IT*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2901.L12				
SECNAV Projects IT System Modernization: Technology Development	1	2021	4	2027
SECNAV Projects IT System Modernization: System Development & Demonstration	1	2021	4	2027
SECNAV Projects IT System Modernization: System Testing	1	2021	4	2027
SECNAV Projects IT System Modernization: Production & Deployment	1	2021	4	2027
Civilian Human Capital Strategy: Pre-implementation / Configuration Preparations	1	2022	4	2022
Civilian Human Capital Strategy: Implementation / Configuration	3	2022	4	2026
Civilian Human Capital Strategy: Testing	1	2023	4	2026
Civilian Human Capital Strategy: Deployment	2	2023	4	2027
ePS: ePS / Market Research and Capability Delviery Assessment Activities	3	2022	4	2026
ePS: ePS / Agile Development and DevSec Ops	3	2021	4	2023
ePS: ePS / MVCR Prototyping	1	2022	3	2022
ePS: ePS / Portfolio Coordinator Contract Award	3	2022	3	2022
ePS: ePS/ MCBOSS Cloud Support Integration	3	2022	4	2023
ePS: ePS/ Authority to Operate	1	2022	4	2027
ePS: ePS/ Production Environment	4	2022	2	2023
ePS: ePS/ MVCR Release 1.1	3	2023	3	2023
ePS: ePS/ MVCR Release 1.2	4	2023	4	2023
ePS: ePS/ Continuous Capability Backlog Prioritization	1	2023	4	2027
ePS: ePS/ Future MVCR Releases	1	2024	4	2027
NEST: NEST/ NGEN-R Upgrades	1	2021	4	2027
Warfighting Readiness Assessment - Force Level Integration (FLINT)				

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2901 / *Navy Enterprise IT*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
FAIT Engineering Assessment	1	2021	3	2021
FAIT Design	1	2021	2	2021
FAIT Pilot	1	2021	4	2021
FLINT Warfighting and Readiness analytical capability requirements validation	1	2022	1	2022
FLINT Data Environment Gap Analysis	2	2022	1	2023
FLINT Model Evaluation and Selection	2	2022	1	2023
FLINT Automation and Machine Learning Enhancements	2	2022	4	2024
FLINT Authority to Operate	4	2022	4	2022
FLINT Data Digitization	3	2022	1	2023
FLINT Data Architecture and Engine	3	2022	1	2023
FLINT Minimum Viable Product	1	2023	4	2023
FLINT Warfighting Capability Model	1	2023	4	2024
FLINT Force Capacity Models	1	2023	4	2024
FLINT Fleet Readiness Models	1	2023	4	2024
FLINT Analytical Minimal Value Capability Release (MVCR)	1	2024	4	2024
Live Virtual and Constructive (LVC) Training Development: LVC Program Management and Coordination	1	2022	4	2023
Live Virtual and Constructive (LVC) Training Development: LVC Scenario Development	1	2022	4	2023
Live Virtual and Constructive (LVC) Training Development: I-Warrior Integration	1	2022	4	2023
Live Virtual and Constructive (LVC) Training Development: Virtual Wizard Release	1	2022	4	2023
NGEN Architecture Design and Testing: INOCCS Testing	1	2023	2	2024
NGEN Architecture Design and Testing: Transport, Compute, & Storage Pilot Testing	1	2023	3	2024
NGEN Architecture Design and Testing: Develop Future State Architecture	1	2023	4	2025

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605013N / *Information Technology Development*	Project (Number/Name) 2903 / *NAVAIR IT*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
2903: *NAVAIR IT*	62.934	7.672	4.683	11.413	-	11.413	11.277	10.761	11.130	11.596	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Configuration Management Information System (CMIS) - This program was originally identified as Joint Configuration Management Information System (JCMIS) to reflect the main software tool used for component tracking and Aircraft Configuration Management. However, as the available data sources from the fleet have expanded, the new name of CMS was chosen to better acknowledge the variety of information sources which are received, integrated, and compiled to give the most accurate component record data and aircraft configuration. CMS serves as the Program of Record (POR) to manage and control Navy and Marine Corps aviation component data reconstruction efforts. CMS compiles record data via fleet documentation of component updates and captures this information via a centrally managed database within the current software tool, Joint Configuration Management Information System (JCMIS). CMS efficiently manages product structure data, including complex interrelationships between assemblies and subassemblies, technical documentation and the parts that comprise the item. Accurate, complete and accessible configuration data is critical to the successful operations of DoD weapon systems or tracked assets. Mission readiness and operational capabilities are enhanced by CMS, as consistent integrated configuration data is readily available to operators, maintainers and logistics personnel. CMS provides users with a common database infrastructure to ensure compatibility, quality, and consistency of Configuration Management (CM) processes and provides configuration managers and analysts the validated CM information necessary for accurate maintenance, spare procurements, reliability and safety analysis, and mission readiness. Funding is budgeted to support the services of re-hosting and testing of Commercial off-the-shelf (COTS) upgrades to ensure objective performance of CMS is achieved.

Navy Cybersecurity - Cyber Warfare consists of many different aspects to include sabotage of our weapon systems, networks as well as enablement of missions. Nation and non-nation state actors are acquiring and employing more advanced cyber-attacks in order to exploit our networks and aviation systems challenging our technological edge. The threats and capabilities are real and range from exploiting capabilities, overloading weapons systems and logistics supply chains, to jamming signals or taking control of weapons systems. We must defend against adversarial cyber attacks while contributing to the exploitation of cyber warfare capabilities.

To meet these challenges and address the Chief of Naval Operations priorities and tasking, these R&D efforts are specifically focused on Naval Air Systems Command weapon or control systems and programs to ensure warfighting effectiveness as part of integrated / multi-platform kill chains. These research and development efforts will strengthen our cyber posture by developing research, development, test and evaluation capabilities and solutions to deter, detect, and mitigate cyber threats and safeguard classified naval aviation systems and platforms from "cradle to grave." These solutions will be integrated into the acquisition of weapons systems to enhance security, increase lethality, and improve resiliency in the expected operational environments. Our weapon or control systems are unique in the aforementioned environments and mission, but also in the presence of numerous non-traditional access points and trusted cyber relationships required for operational environments.

Further, this line sustains Naval Aviation's Red Team capability to research, identify and validate nation-state exploitable cyber susceptibilities and vulnerabilities in both deployed and next-generation warfighting platforms. Through it, these efforts improve Naval Aviation's mission survivability by developing and demonstrating operational TTPs within the cyber-contested environment. The team partners with Naval Aviation programs to certify theorized cyber weaknesses and thus to prevent denial, degradation or disruption of safety, readiness, and mission. The Red Team's assessment products support CYBERSAFE certification of platforms and systems,

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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and likewise supports PMAs and OPNAV with validated threat data to prioritizing systems security engineering (SSE) investments. The team leverages national-level cyber warfare experts, all-source intelligence, and technology research to assess NAE operational technology, fleet exercises, support equipment, enterprise logistics systems, and supply chain.

Digital Thread (DT)- Capability provides digital process integration with complete, secure and authoritative data, coordinated as part of approved Navy LOG-IT. DT integrates the product life cycle to provide universal access to authoritative data and workflow automation, enabling configuration management of data, implementation of closed loop quality, and consolidation of engineering products including digital enablement of additive manufacturing. Connecting these processes using standardized digital tools and data accelerates the product development cycle and lowers costs for support and new capability integration. The Digital Thread capability includes development and demonstration of cyber security architectures for sustainment information systems, and development of a digital/additive manufacturing data architecture and repository.

Digital Production Floor (DPF)- Initiative modernizes Navy Aviation Depots by removing paper from the Production floor and integrating key Quality elements to support a true digital North Star ensuring viability and alignment with broader Naval Logistics IT (LOG-IT) enterprise initiatives to realize a fully unified digital sustainment capability. This capability aligns and leverages ongoing Digital Thread /Aviation Product Lifecycle Management (AvPLM) efforts to transform our existing way of doing business and align us with commercial best practices for digitization of business processes. Current paper based processes have demonstrated inefficiencies and administrative delays in performance and quality of product on Depot level repair turnaround times.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: CMIS Annual Software Release	0.576	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: N/A					
FY 2023 Base Plans: N/A					
FY 2023 OCO Plans: N/A					
Title: Navy Cybersecurity	4.622	1.778	6.098	0.000	6.098
Articles:	-	-	-	-	-
FY 2022 Plans: - Broad Agency Announcement (BAA) new awards and continuation for the development, demonstration, and transition of cyber security solutions across identified critical technology areas.					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
- Continue augmentation and maturation of laboratory capabilities, environments and customized toolsets across multiple NAVAIR sites and facilities to conduct cyber security Research, Development, Test and Evaluation (RDT&E) for NAVAIR programs. - Continue development aviation weapon systems customized tools, methodologies, and procedures identified from Cyber Risk Assessments, Cyber Table Tops, test and evaluation capability gaps and emergent threats. Increased program and Fleet support capability for penetration testing, hands on adversarial assessments, and engineering investigations. - Continue support of emergent Fleet Cyber Command/10th Fleet (FLTCYBERCOM/C10F) Operations Orders (OPORD) and Tasking Orders (TASKORD) requiring urgent development of cyber incidence planning and response capability and customized weapon and control systems solutions for identified Fleet risks. - Increase capability investment directly supports emergent intelligence, FLTCYBERCOM/C10F OPORDs/ TASKORDs, Blackbeard After Action Report (AAR), Cyber Risk Assessments of Aviation Weapons Systems and Platforms, Aviation Resiliency, incident response investigations, Cyber Supply Chain risk management (SCRM) and hardening, and OSD Defense Science Board Task Force for Cyber Deterrence recommendations. Without this capability investment the US Navy will continue to be vulnerable to attacks on its nontraditional systems (e.g., Aircraft, Weapons, Radars, Aircraft Launch and Recovery Equipment (ALRE)) and will result in significant residual risk to aviation combat systems.					
FY 2023 Base Plans: - Broad Agency Announcement (BAA) new awards and continuation for the development, demonstration, and transition of cyber security solutions across identified critical technology areas. - Continue augmentation and maturation of laboratory capabilities, environments and customized toolsets across multiple NAVAIR sites and facilities to conduct cyber security Research, Development, Test and Evaluation (RDT&E) for NAVAIR programs. - Continue development aviation weapon systems customized tools, methodologies, and procedures identified from Cyber Risk Assessments, Cyber Table Tops, test and evaluation capability gaps and emergent threats. Increased program and Fleet support capability for penetration testing, hands on adversarial assessments, and engineering investigations. - Continue support of emergent Fleet Cyber Command/10th Fleet (FLTCYBERCOM/C10F) Operations Orders (OPORD) and Tasking Orders (TASKORD) requiring urgent development of cyber incidence planning and response capability and customized weapon and control systems solutions for identified Fleet risks. - Continue to increase capability investment directly supports emergent intelligence, FLTCYBERCOM/C10F OPORDs/TASKORDs, Blackbeard After Action Report (AAR), Cyber Risk Assessments of Aviation Weapons					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Systems and Platforms, Aviation Resiliency, incident response investigations, Cyber Supply Chain risk management (SCRM) and hardening, and OSD Defense Science Board Task Force for Cyber Deterrence recommendations. Without this capability investment the US Navy will continue to be vulnerable to attacks on its nontraditional systems (e.g., Aircraft, Weapons, Radars, Aircraft Launch and Recovery Equipment (ALRE)) and will result in significant residual risk to aviation combat systems. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 increase of $4.320M supports Cyber Red Team.					
Title: Digital Thread	2.474	2.905	4.015	0.000	4.015
Articles:	-	-	-	-	-
FY 2022 Plans: Continue to extend DT-IDRN capabilities to overall processes including digital engineering data, integrated quality management, digital manufacturing connectivity. Continue development and implementation of digital workflows to accelerate processes and manage digital technical data. Continue integration of IDRN requirements into AvPLM to manage digital technical data for key platforms. Create additional networked capability to extend information across digital platforms. Continue to expand and extend capability for DT to allow for Additive Manufacturing (AM) Integration for cybersecure capacity expansion to meet fleet requirements. ***FY 2023 Base Plans:*** Expand DT-IDRN capabilities to ramp up product development to incrementally deliver additive manufacturing capabilities to increase the breadth and complexity of parts that can be manufactured by the Fleet. Implement additional processes and workflows to including digital engineering data, integrated quality management, and digital manufacturing connectivity. Continue development and implementation of digital workflows to accelerate processes and integration of IDRN requirements into AvPLM to manage digital technical data for key platforms. Continue to create additional networked capability to extend information across digital platforms. Continue to expand and extend capability for DT to allow for Additive Manufacturing (AM) Integration for cybersecure capacity expansion to meet fleet requirements. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:***					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2903 / *NAVAIR IT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
FY23 increase of $1.110M is reflective of in line programmatic expectation for Additive Manufacturing Digital enablement to support operational fielding.					
Title: Digital Production Floor	0.000	0.000	1.300	0.000	1.300
Articles:	-	-	-	-	-
FY 2022 Plans: N/A					
FY 2023 Base Plans: Begin development, configuration, and implementation of digital workflows to accelerate processes and manage digital data. Initiate effort for digital work package traceability for shop floor efficiency to advance and transform from paper to a unified digital sustainment capability. Develop acquisition strategy that facilitates the creation and implementation of an infrastructure that will provide secure network capabilities to extend and synchronize information across digital platforms while transforming the existing way of doing business from paper to align with digital business best practices.					
FY 2023 OCO Plans: N/A					
FY 2022 to FY 2023 Increase/Decrease Statement: FY23 increase of $1.3M supports the development, configuration, and implementation of unified digital workflows from paper to increase efficiencies.					
Accomplishments/Planned Programs Subtotals	7.672	4.683	11.413	0.000	11.413

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The Configuration Management System (CMS) Program used Joint Logistics Systems Center (JLSC) funds to evolve JCMIS to Software Release 5.0. In June 1998 JCMIS was transferred to the Navy as executive agent and NAVAIR as program manager. Program Budget Decision 401 transferred joint funding from JLSC to NAVAIR. The CMS Program Manager continues to evolve the program to keep pace with cost, changing business processes, data integration, and evolving commercial and military standards. Various contractors using competitively awarded contracts have supported the program.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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Navy Cybersecurity - The Navy Cybersecurity strategy is in 3 concurrent steps:
1. Broad Agency Announcements (BAA) for resilient cyber warfare capabilities and control system solutions for NAVAIR Weapon Systems. Draft BAA delineating Naval Research Areas of Interest; Specific Areas of Interest; Technologies Being Sought; Proposal Submission; Proposal Abstracts; Full Proposal; General Information, and Evaluation Criteria.
The objective of the BAA is principally to orchestrate germane research and development to fill the gaps in cyber warfare capabilities for Naval Air Systems Command (NAVAIR) weapon systems, i.e., secure weapon systems able to survive and exploit cyber warfare. Areas of interest include but not limited to:
1) SWaP sensitive cyber resiliency for RTOS and aviation warfare environment
2) Access point identification, prioritization and defense
3) Cyber-Electronic Warfare convergent capabilities
4) Full acquisition cycle cyber security measures
5) Cyber test, inspection, incident response and training tools
6) Cyber warning systems
7) Cyber fault, risk and threat assessment methodologies

2. Advanced Cyber Lab (ACL)
Achieve capability to respond to cyber incidents, conduct federated avionics penetration tests in support of cyber risk assessments and develop control system solutions for NAVAIR weapon systems and acquisition programs. Assessing BAA solutions for Naval Aviation. Acquire delineated specialized equipment, software tools, space, power, cooling, and security.
1) Secure Messaging - Cryptography, Steganography, etc.
2) Embedded Operating System Threat Assessment, Software Reverse Engineering, Federated Penetration Testing of Custom Control Systems
3) Advanced Anti-tamper, Digital Forensics
4) Microelectronics Reverse Engineering
5) Capabilities in response to Denial of Service, Precision Direct Attack/ Root Kits, Interdiction / Data in transit and Infrastructure / SCADA attacks.
6) Portable Assessment and Test

3. Organic Cyber Solutions for NAVAIR Customized Control Systems
Project investigation and development or tools and tailored solutions for our control systems and improve the cyber security at control system entry points will be completed. Areas discovered include but are not limited to:
1) Intrusion Detection / Prevention Systems (IDS/IPS) for Real Time systems
2) Live-CD boot
3) Out of Band Monitoring & Authentication
4) Weapon System of Systems Architecture tools
5) Avionics Fuzzing
6) Federated Penetration Testing Tool Set & Non-Destructive Inspection Tool
7) Dynamic Network Maneuvering

8) Weapon System Side Channel Analysis

4. Cyber Red Teaming of Naval Aviation
Cyber Red Teaming of naval aviation systems will be completed across the acquisition lifecycle to include systems deployed in their operational environments. Focus areas will include but are not limited to:
1) Onboard/supporting embedded systems
2) Onboard/supporting RF/EM systems
3) RDT&E environments
4) Software support activities
5) Supply chain
6) Support and maintenance equipment
7) Enterprise network security
8) Logistics systems
9) Physical security

Digital Thread - Digital Thread/Cyber Security Architecture and 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)).
1) Develop cyber security architecture standards for Naval Aviation Environment (NAE) Digital Thread.
2) Develop IT and data architecture for NAE Digital Thread to accelerate maintenance and sustainment and support digital manufacturing capabilities including design, manufacturing, and materials data.
3) Implement cyber security architecture for NAE Digital Thread including COMFRC, Logistics IT, PMAs.
4) Implement Phase 1 of NAE Digital Thread Integrated Digital Resource Network (DT-IDRN) at D-level locations.
5) Stand up developmental digital manufacturing data repository that includes digital design and digital material database.
6) Integrate digital manufacturing data repository into DT-IDRN.

Digital Production Floor 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)).

1) Develop IT and data architecture for DPF to digitize, optimize and standardize Depot maintenance processes
2) Develop and execute acquisition strategy for required infrastructure and software development/configuration
3) Develop and execute Hardware Acquisition strategy for end user aligned to LD implementation targets
4) Implement IT and data architecture for DPF

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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5) Complete accreditation, interface development, test plan and prototype of DPF
6) Implement Phase 1 (Limited Deployments) of DPF at primary D-level locations
7) Implement Phase I (Limited Deployments) of DPF at all D-level locations
8) Continue Limited Deployments, in a Continuous Improvement Capability Delivery (CICD) methodology

Hardware and software development services will be awarded using competitively awarded contracts with appropriate out-year options. Service contracts 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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Solutions for Cyber Warfare Capabilities for Navy Cybersecurity	Various	Various : Various	15.394	1.574	Oct 2020	0.273	Oct 2021	1.959	Oct 2022	-		1.959	Continuing	Continuing	Continuing
Solutions for Digital Thread	Various	Various : Various	20.949	1.937	Oct 2020	2.231	Oct 2021	3.077	Oct 2022	-		3.077	Continuing	Continuing	Continuing
Solutions for Digital Production Floor	TBD	TBD : TBD	0.000	0.000		0.000		0.654	Apr 2023	-		0.654	Continuing	Continuing	Continuing
		Subtotal	36.343	3.511		2.504		5.690		-		5.690	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior year Prod Def no longer funded in the FYDP	Various	Various : Various	1.869	0.000		0.000		0.000		-		0.000	0.000	1.869	-
Software Support for Configuration Management Information System (CMIS)	C/FFP	KBR : Lexington Park, MD	1.511	0.441	Nov 2020	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Software Support for Configuration Management Information System (CMIS)	Various	Various : Various	0.493	0.065	Feb 2021	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	3.873	0.506		0.000		0.000		-		0.000	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support for Configuration Management Information System (CMIS)	WR	NAWCAD : Patuxent River, MD	1.686	0.070	Dec 2020	0.000		0.000		-		0.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2903 / *NAVAIR IT*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering Support for Navy Cybersecurity	WR	NAWCAD : Patuxent River, MD	12.332	2.948	Oct 2020	1.455	Oct 2021	4.089	Oct 2022	-		4.089	Continuing	Continuing	Continuing
Systems Engineering Support for Digital Thread	WR	NAWCAD : Patuxent River, MD	6.375	0.537	Oct 2020	0.674	Oct 2021	0.938	Oct 2022	-		0.938	Continuing	Continuing	Continuing
Systems Engineering Support for Navy Cybersecurity	WR	NAWCWD : China Lake, CA	2.325	0.100	Oct 2020	0.050	Oct 2021	0.050	Oct 2022	-		0.050	Continuing	Continuing	Continuing
Systems Engineering Support for Digital Production Floor	TBD	TBD : TBD	0.000	0.000		0.000		0.646	Oct 2022	-		0.646	Continuing	Continuing	Continuing
		Subtotal	22.718	3.655		2.179		5.723		-		5.723	Continuing	Continuing	N/A

	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	62.934	7.672		4.683		11.413		-		11.413	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2903 / *NAVAIR IT*

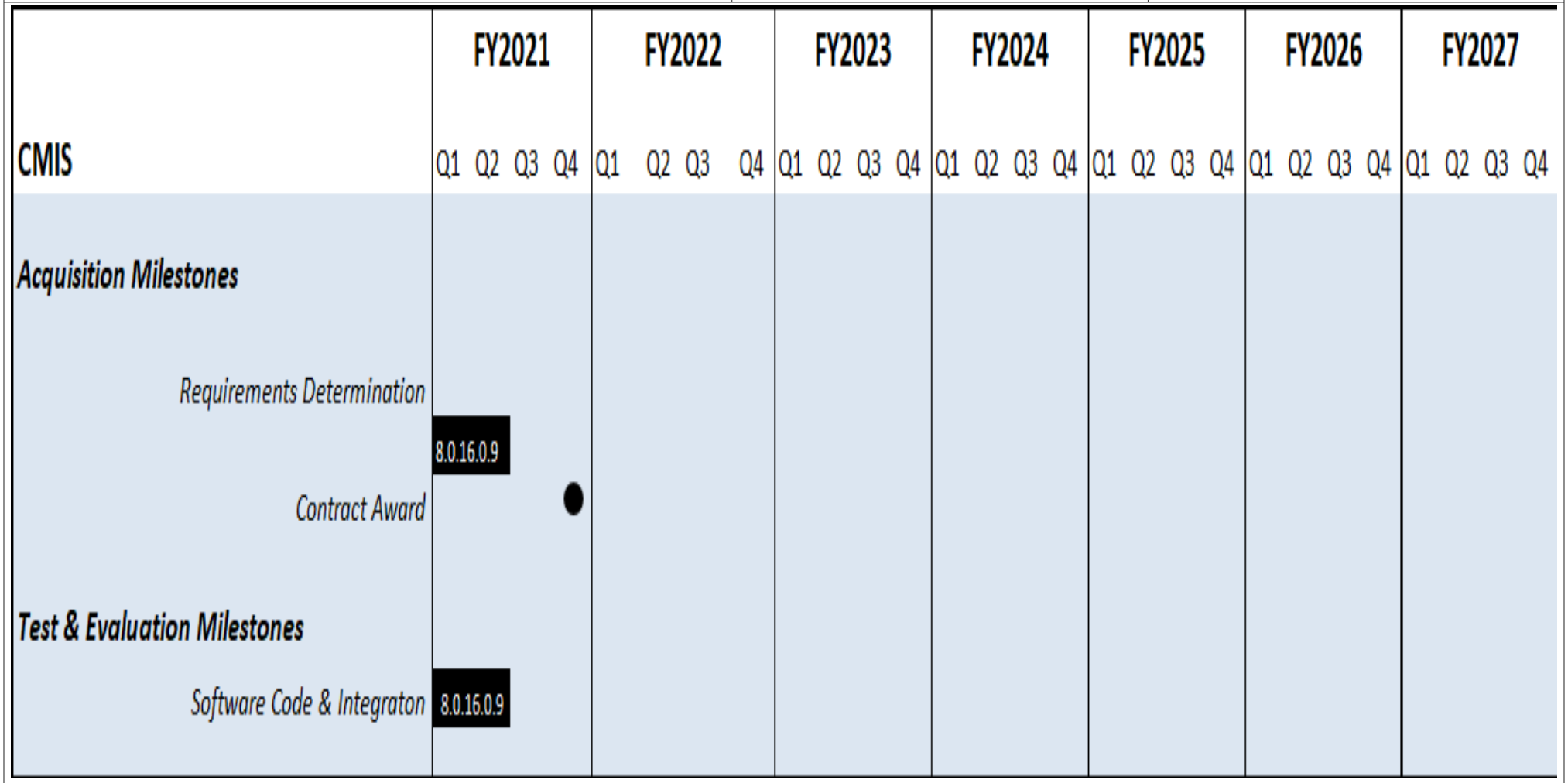

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2903 / *NAVAIR IT*

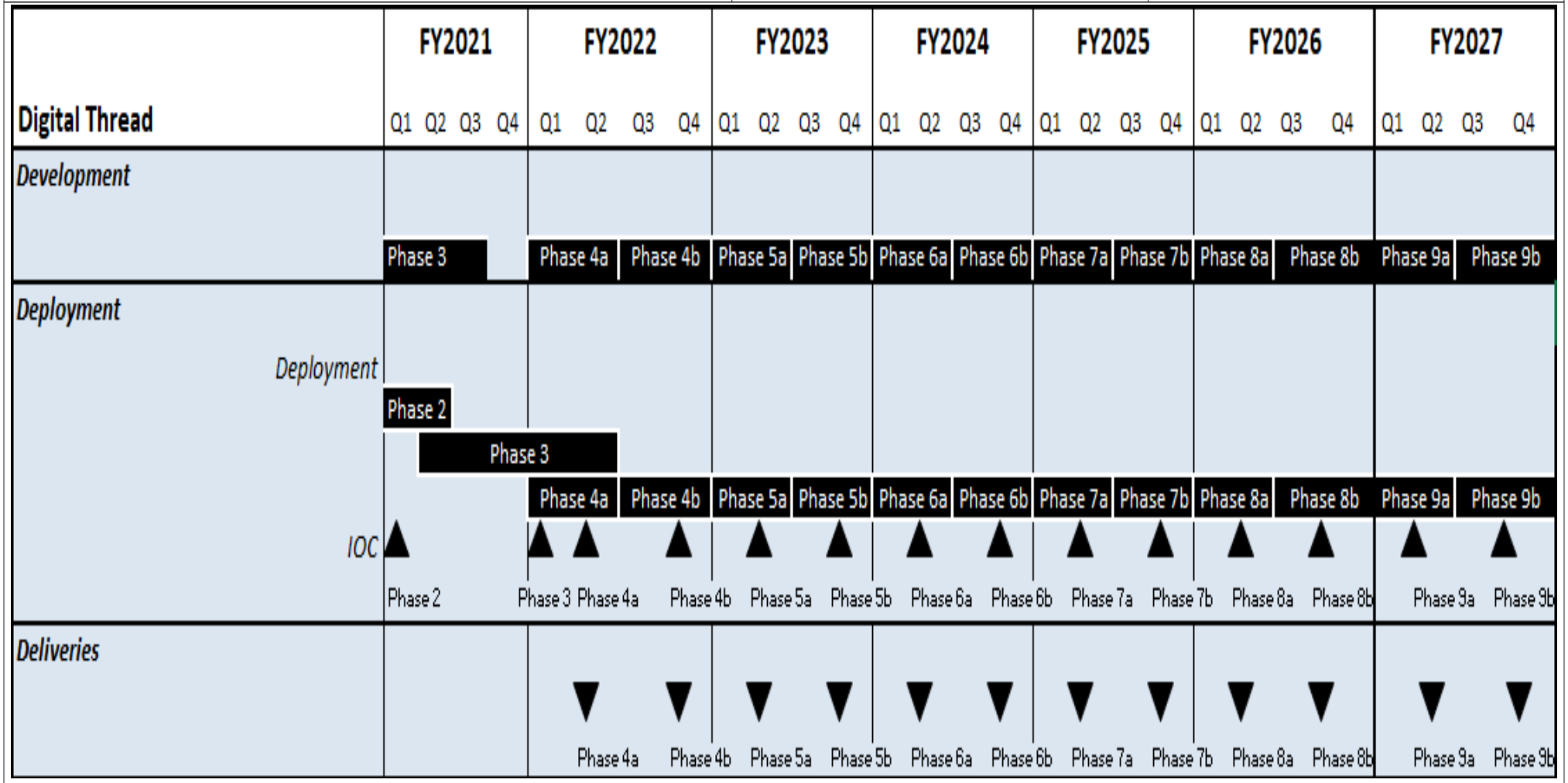

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2903 / *NAVAIR IT*

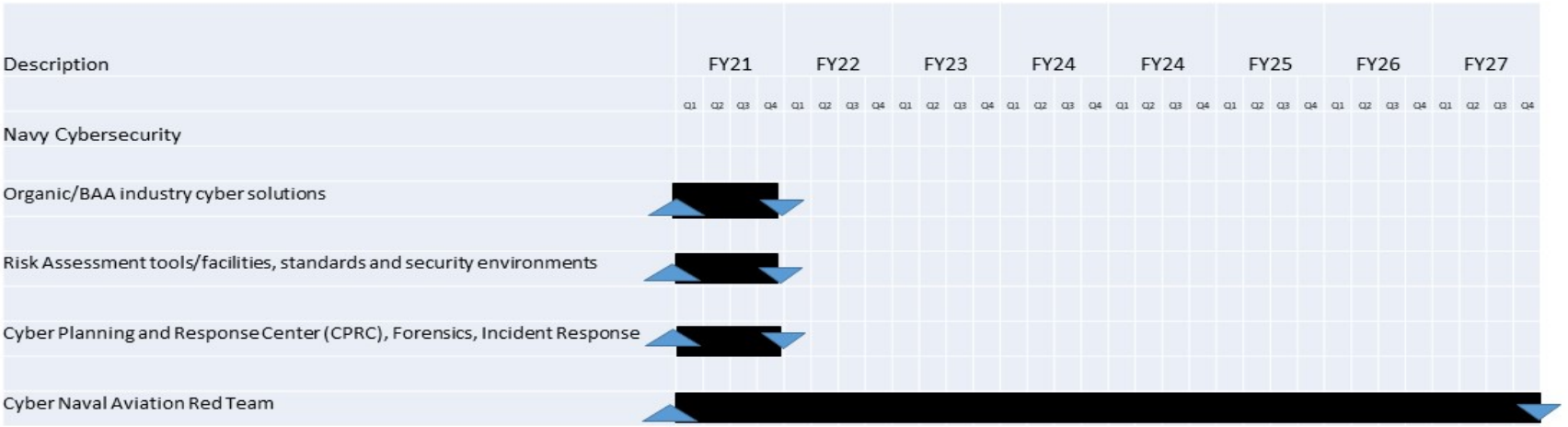

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2903 / *NAVAIR IT*

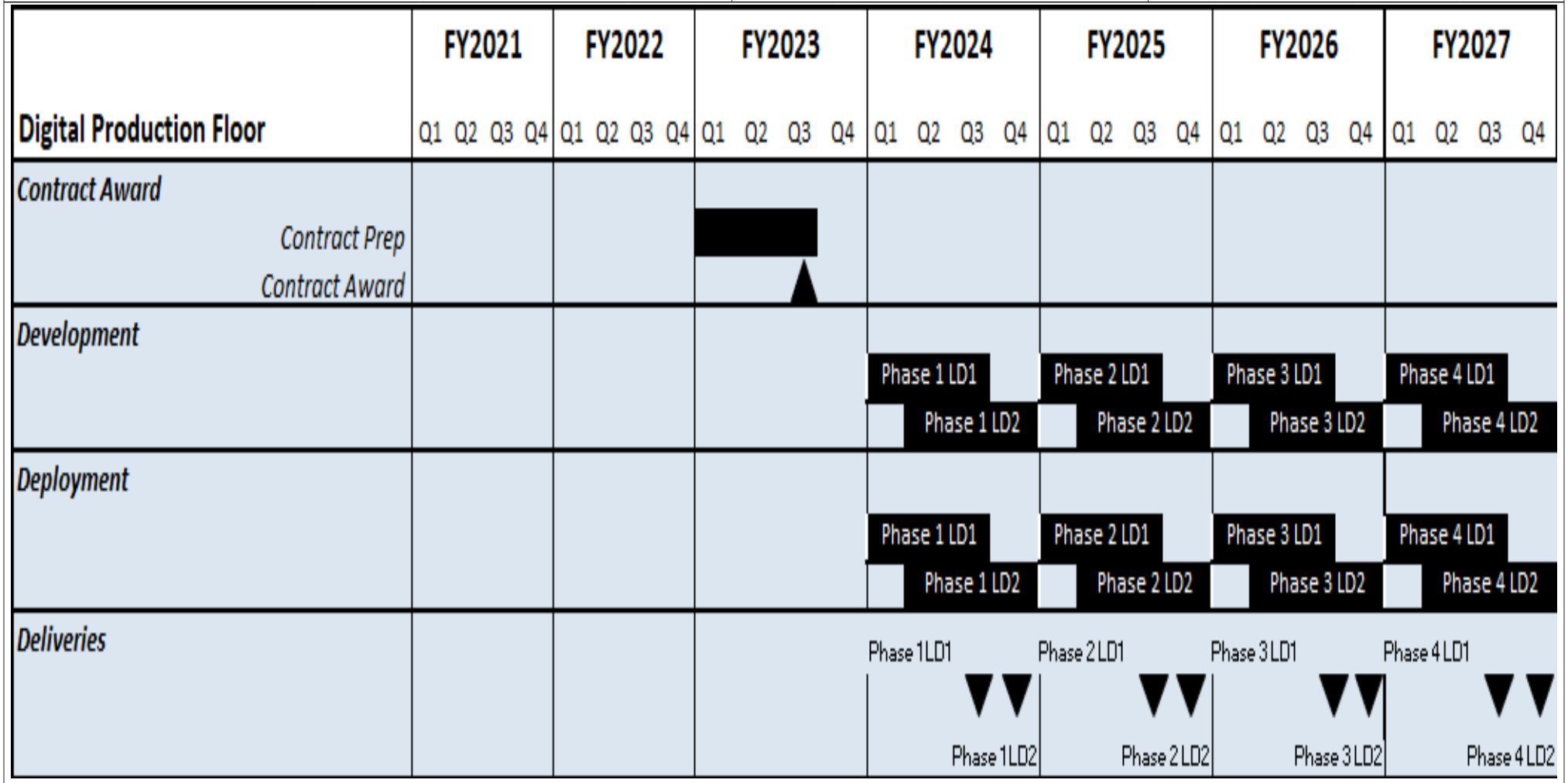

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2903 / *NAVAIR IT*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
NAVAIR IT				
Contract Award: Contract Award, Release 8.0.16.0.9	4	2021	4	2021
Development: Software Code & Integration: Release 8.0.16.0.9	1	2021	3	2021
Navy Cybersecurity				
Advanced Cyber Labs: Support Organic/BAA industry solutions: Organic/BAA industry cyber solutions	1	2021	4	2021
Advanced Cyber Labs: Support Organic/BAA industry solutions: Risk Assessment tools/facilities, standards and security environments	1	2021	4	2021
Advanced Cyber Labs: Support Organic/BAA industry solutions: Cyber Planning and Response Center (CPRC), Forensics, Incident Response	1	2021	4	2021
Advanced Cyber Labs: Support Organic/BAA industry solutions: Cyber Naval Aviation Red Team	1	2021	4	2027
Digital Thread				
Development: Digital Thread Development: Digital Thread Capability Development Updates (Phase 4a)	1	2022	2	2022
Development: Digital Thread Development: Digital Thread Capability Development Updates (Phase 4b)	3	2022	4	2022
Development: Digital Thread Development: Digital Thread Capability Development Updates (Phase 5a)	1	2023	2	2023
Development: Digital Thread Development: Digital Thread Capability Development Updates (Phase 5b)	3	2023	4	2023
Development: Digital Thread Development: Digital Thread Capability Development Updates (Phase 6a)	1	2024	2	2024
Development: Digital Thread Development: Digital Thread Capability Development Updates (Phase 6b)	3	2024	4	2024

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2903 / *NAVAIR IT*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Development: Digital Thread Development: Digital Thread Capability Development Updates (Phase 7a)	1	2025	2	2025
Development: Digital Thread Development: Digital Thread Capability Development Updates (Phase 7b)	3	2025	4	2025
Development: Digital Thread Development: Digital Thread Capability Development Updates (Phase 8a)	1	2026	2	2026
Development: Digital Thread Development: Digital Thread Capability Development Updates (Phase 8b)	3	2026	4	2026
Development: Digital Thread Development: Digital Thread Capability Development Updates (Phase 9a)	1	2027	2	2027
Development: Digital Thread Development: Digital Thread Capability Development Updates (Phase 9b)	3	2027	4	2027
Deployment: Digital Thread Deployment: Digital Thread Deployment Fleet Integration (Phase 3)	2	2021	2	2022
Deployment: Digital Thread Deployment: Digital Thread Deployment New/Updates (Phase 4a)	1	2022	2	2022
Deployment: Digital Thread Deployment: Digital Thread Deployment New/Updates (Phase 4b)	3	2022	4	2022
Deployment: Digital Thread Deployment: Digital Thread Deployment New/Updates (Phase 5a)	1	2023	2	2023
Deployment: Digital Thread Deployment: Digital Thread Deployment New/Updates (Phase 5b)	3	2023	4	2023
Deployment: Digital Thread Deployment: Digital Thread Deployment New/Updates (Phase 6a)	1	2024	2	2024
Deployment: Digital Thread Deployment: Digital Thread Deployment New/Updates (Phase 6b)	3	2024	4	2024
Deployment: Digital Thread Deployment: Digital Thread Deployment New/Updates (Phase 7a)	1	2025	2	2025

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2903 / *NAVAIR IT*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Deployment: Digital Thread Deployment: Digital Thread Deployment New/Updates (Phase 7b)	3	2025	4	2025
Deployment: Digital Thread Deployment: Digital Thread Deployment New/Updates (Phase 8a)	1	2026	2	2026
Deployment: Digital Thread Deployment: Digital Thread Deployment New/Updates (Phase 8b)	3	2026	4	2026
Deployment: Digital Thread Deployment: Digital Thread Deployment New/Updates (Phase 9a)	1	2027	2	2027
Deployment: Digital Thread Deployment: Digital Thread Deployment New/Updates (Phase 9b)	3	2027	4	2027
Deployment: Digital Thread Deployment: Digital Thread Phase 2 IOC Extended	1	2021	1	2021
Deployment: Digital Thread Deployment: Digital Thread Phase 3- IOC FMC	1	2022	1	2022
Deployment: Digital Thread Deployment: Digital Thread Phase 4a IOC	2	2022	2	2022
Deployment: Digital Thread Deployment: Digital Thread Phase 4b IOC	4	2022	4	2022
Deployment: Digital Thread Deployment: Digital Thread Phase 5a IOC	2	2023	2	2023
Deployment: Digital Thread Deployment: Digital Thread Phase 5b IOC	4	2023	4	2023
Deployment: Digital Thread Deployment: Digital Thread Phase 6a IOC	2	2024	2	2024
Deployment: Digital Thread Deployment: Digital Thread Phase 6b IOC	4	2024	4	2024
Deployment: Digital Thread Deployment: Digital Thread Phase 7a IOC	2	2025	2	2025
Deployment: Digital Thread Deployment: Digital Thread Phase 7b IOC	4	2025	4	2025
Deployment: Digital Thread Deployment: Digital Thread Phase 8a IOC	2	2026	2	2026
Deployment: Digital Thread Deployment: Digital Thread Phase 8b IOC	4	2026	4	2026
Deployment: Digital Thread Deployment: Digital Thread Phase 9a IOC	2	2027	2	2027
Deployment: Digital Thread Deployment: Digital Thread Phase 9b IOC	4	2027	4	2027
Deliveries: Digital Thread New/Updates (Phase 4a)	2	2022	2	2022
Deliveries: Digital Thread New/Updates (Phase 4b)	4	2022	4	2022
Deliveries: Digital Thread New/Updates (Phase 5a)	2	2023	2	2023

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2903 / *NAVAIR IT*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Deliveries: Digital Thread New/Updates (Phase 5b)	4	2023	4	2023
Deliveries: Digital Thread New/Updates (Phase 6a)	2	2024	2	2024
Deliveries: Digital Thread New/Updates (Phase 6b)	4	2024	4	2024
Deliveries: Digital Thread New/Updates (Phase 7a)	2	2025	2	2025
Deliveries: Digital Thread New/Updates (Phase 7b)	4	2025	4	2025
Deliveries: Digital Thread New/Updates (Phase 8a)	2	2026	2	2026
Deliveries: Digital Thread New/Updates (Phase 8b)	4	2026	4	2026
Deliveries: Digital Thread New/Updates (Phase 9a)	2	2027	2	2027
Deliveries: Digital Thread New/Updates (Phase 9b)	4	2027	4	2027
Digital Production Floor				
Contract Award: Contract Award Prep	1	2023	3	2023
Contract Award: Contract Award	3	2023	3	2023
Development: Development Digtial Production Floor: Digital Production Floor Phase 1 LD1	1	2024	3	2024
Development: Development Digtial Production Floor: Digital Production Floor Phase 1 LD2	2	2024	4	2024
Development: Development Digtial Production Floor: Digital Production Floor Phase 2 LD1	1	2025	3	2025
Development: Development Digtial Production Floor: Digital Production Floor Phase 2 LD2	2	2025	4	2025
Development: Development Digtial Production Floor: Digital Production Floor Phase 3 LD1	1	2026	3	2026
Development: Development Digtial Production Floor: Digital Production Floor Phase 3 LD2	2	2026	4	2026
Development: Development Digtial Production Floor: Digital Production Floor Phase 4 LD1	1	2027	3	2027

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2903 / *NAVAIR IT*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Development: Development Digtial Production Floor: Digital Production Floor Phase 4 LD2	2	2027	4	2027
Deployment: Deployment Digtial Production Floor: Digital Production Floor Phase 1 LD1	1	2024	3	2024
Deployment: Deployment Digtial Production Floor: Digital Production Floor Phase 1 LD2	2	2024	4	2024
Deployment: Deployment Digtial Production Floor: Digital Production Floor Phase 2 LD1	1	2025	3	2025
Deployment: Deployment Digtial Production Floor: Digital Production Floor Phase 2 LD2	2	2025	4	2025
Deployment: Deployment Digtial Production Floor: Digital Production Floor Phase 3 LD1	1	2026	3	2026
Deployment: Deployment Digtial Production Floor: Digital Production Floor Phase 3 LD2	2	2026	4	2026
Deployment: Deployment Digtial Production Floor: Digital Production Floor Phase 4 LD1	1	2027	3	2027
Deployment: Deployment Digtial Production Floor: Digital Production Floor Phase 4 LD2	2	2027	4	2027
Deliveries: Deliveries Digtial Production Floor: Digital Production Floor Phase 1 LD1	3	2024	3	2024
Deliveries: Deliveries Digtial Production Floor: Digital Production Floor Phase 1 LD2	4	2024	4	2024
Deliveries: Deliveries Digtial Production Floor: Digital Production Floor Phase 2 LD1	3	2025	3	2025
Deliveries: Deliveries Digtial Production Floor: Digital Production Floor Phase 2 LD2	4	2025	4	2025
Deliveries: Deliveries Digtial Production Floor: Digital Production Floor Phase 3 LD1	3	2026	3	2026
Deliveries: Deliveries Digtial Production Floor: Digital Production Floor Phase 3 LD2	4	2026	4	2026
Deliveries: Deliveries Digtial Production Floor: Digital Production Floor Phase 4 LD1	3	2027	3	2027
Deliveries: Deliveries Digtial Production Floor: Digital Production Floor Phase 4 LD2	4	2027	4	2027

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605013N / *Information Technology Development*	Project (Number/Name) 2904 / *NAVSEA IT*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
2904: *NAVSEA IT*	284.511	21.530	16.579	17.474	-	17.474	20.214	20.690	20.091	20.113	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Navy Maritime Maintenance Enterprise Solution (NMMES) is the Information Technology (IT) toolset currently utilized to execute ship and submarine maintenance in the Naval Shipyards (NSY), Regional Maintenance Centers (RMC), Ship Repair Facility (SRF), Intermediate Maintenance Facilities (IMF), Forward Deployed Regional Maintenance Center, and commercial industrial sites worldwide. These maintenance activities support Fleet operations 24 hours per day, 7 days per week. The NMMES IT solution is used by over 40,000 civilians and military who conduct over $8.9B of ship, aircraft carrier, and submarine maintenance and modernization on an annual basis.

The NMMES program includes sustainment as well as multiple modernization efforts to insure the continued effectiveness of the Fleet maintenance IT toolset. These efforts consist of adding mandatory enhancements, such as Financial Improvement and Audit Readiness (FIAR) changes and aligning with the Standard Accounting Budget Reporting System (SABRS) system. The NMMES program provides for software changes, retiring and/or replacing of costly legacy applications, transition planning, and systems engineering for integration with existing and future solutions. These efforts align with direction to insure that proposed interim solutions support and facilitate the transition to the planned maintenance solution end state. This program will provide modernization, migration, testing, and consolidation of obsolete IT tools and code base to the next generation of centrally hosted tools supporting Fleet Maintenance systems for the Navy. Funding for NMMES PU 2904 addresses critical deficiencies and minimizes the inherent risks that a catastrophic failure would be to fleet readiness. The funds are required to support the modernization of products that are on outdated software, align maintenance applications and processes with evolving shipbuilding techniques, and enhance the existing applications to make them cloud capable. It also provides for software enhancements required to make applications Financial Improvement and Audit Readiness (FIAR) compliant and to enable system modifications of financial feeder applications to interface with a FIAR compliant system of record. The requirement to handle 3-D integrated product models being delivered with CVN-78, Virginia Class and Columbia Class are also driving the requirement. NAVSEA plans to execute these funds primarily through a current sustainment contract and several separate contracts through existing delivery orders to gain the specialized resources and material necessary to sustain these vital functions.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: electronic Technical Work Document (eTWD)	3.067	1.186	1.007	0.000	1.007
Articles:	-	-	-	-	-
Description: The eTWD Initiative is a NAVSEA Sponsored, Chief of Naval Operations (CNO) approved Reduction in Total Ownership Cost (RTOC) Initiative to establish interactive electronic Technical Work Document (eTWD) capability for use in the naval shipyards. An eTWD will be used to execute maintenance, repair, overhaul and modernization work packages on ships and submarines undergoing major availabilities in					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2904 / *NAVSEA IT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
naval shipyards. This solution will provide paperless work packages, pulling authoritative data from the existing NMMES applications supporting ship maintenance. The interactive electronic work instruction will be used at the jobsite replacing the current paper based instructions. The overall goal for eTWD is twofold: 1) to reduce the resources and time preparing, executing and certifying work instructions; and 2) enable the non-stop execution of work by having online documents and drawings accessible for problem resolution. The eTWD Initiative is in progress. ***FY 2022 Plans:*** The eTWD system is scheduled to conduct and complete Government Acceptance Testing event followed by a Production Readiness Review. eTWD Go Live with individual shipyards will occur as each shipyard migrates onto MSE at the CEDC in Charleston, SC. Sustainment Plan strategy to be finalized and implemented when eTWD contract ends to support long-term eTWD solution sustainment. ***FY 2023 Base Plans:*** The follow-on modules will be initiated based on the success during government testing and evaluation. The functionality will include interfaces with the systems of record that are utilized for work brokering and the development and implementation of class maintenance plans. This will lead to the ability to compare work plans against the varied configurations across ship/sub classes in future years. The existing functionality will move into the NMMES sustainment operational baseline. Planning for deployment to the Intermediate Level activities will begin. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 decrease of $0.179M due to deployments are ramped down. The timeline shifted due to the focus on DON COST SABRS and the DISA circuit installs, which permitted centralized data hosting.					
Title: Project Sequencing & Scheduling (PSS) Upgrade	0.635	0.500	1.365	0.000	1.365
Articles:	-	-	-	-	-
Description: The PSS scheduling application provides the naval shipyards (Portsmouth Naval Shipyard, Puget Sound Naval Shipyard & IMF, Pearl Harbor Naval Shipyard & IMF, and Norfolk Naval Shipyard) with a customized, flexible scheduling tool for Chief of Naval Operations maintenance availabilities and other maintenance, repair and overhaul work assigned to the activities in support of the first phase of the Optimized Fleet Response Plan. Key system objectives include: 1) Standardization of the scheduling processes and					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2904 / *NAVSEA IT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
tools; 2) Creation of dates for use in the NMMES project management software; 3) Generation of user and management reports covering all aspects of scheduling of a ship or submarine availability. The current PSS application is based on a proprietary commercial product originally acquired over 25 years ago. The application is outdated and the vendor has informed the Navy that it will no longer be supported in the near future requiring Navy to pursue an immediate upgrade to a supportable product, while not interrupting maintenance availabilities. The product had already become increasingly difficult to maintain and with the pending loss of vendor support could lead to catastrophic system failure and loss of ability to maintain project schedules. ***FY 2022 Plans:*** Conduct training of the user community in the use of the PSS replacement product. Begin configuration for maintenance support functions not currently included in the critical chain scheduling functions across shipyard availabilities. Identify scheduling and sequencing requirements for lifting and handling to conduct analysis to identify configuration and integration tasks into single NSY scheduling tool. ***FY 2023 Base Plans:*** Continue work with new scheduling product vendor to configure product enhancements based on data analysis and continuous improvement process requirements and Fleet recommendations. Begin configuration by lifting and handling sequencing requirements. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 increase of $0.865M supports critical chain/critical path configuration efforts and continued analysis occurs.					
Title: Planned Maintenance System (PMS) Upgrade	1.525	1.495	1.986	0.000	1.986
Articles:	-	-	-	-	-
Description: The Planned Maintenance System Management Information System (PMS MIS) is an upgraded web-based solution that tracks the status of all Maintenance Index Pages (MIPs) and Maintenance Requirements Cards (MRCs). This includes new and revised documentation allowing for Technical Feedback Report (TFBR) generation and tracking from initial reporting to problem resolution, management of activity documentation distribution information, document development history including Reliability-Centered Maintenance (RCM) information and other data needed to support all forms of planned maintenance in the Fleet. PMS MIS will interface with authoritative configuration and logistics management databases allowing for					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2904 / *NAVSEA IT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Equipment Maintenance Plans (EMPs) to reflect actual ship or unit configuration. These EMPs will be created by ashore maintenance managers eliminating tailoring by ships' force. The upgraded PMS Scheduler (PMS SKED) is designed to consume configuration specific O-Level Maintenance Plans and MRCs by afloat platforms to ease administrative burdens associated with Force Revision processing and equipment to PMS associations. The existing processes require excessive sailor and shore expert administrative burden creating complex and ambiguous documents and extensive time to implement changes. As a result, improper execution of equipment maintenance can occur. Additionally, leadership lacks the tools to monitor program implementation and assure satisfactory performance. Furthermore, the existing processes do not support distributed and optimally manned ship concepts of operation such as those now used by the Naval Expeditionary Combat Command and the Littoral Combat Ship. The future PMS upgrade will provide visibility to shore maintenance leaders ensuring equipment is consistently scheduled throughout the fleet and execution issues are identified.					
FY 2022 Plans: PMS MIS role based and user acceptance testing will be completed and PMS MIS IOC will be delivered into a Navy production environment. Interfacing with the Navy Maintenance, Repair and Operations (NMRO) team to validate PMS scheduling functionality and compatibility with legacy Force Revision processes will continue. The FoPMS team is expected to support NMRO shipboard pilots by end of FY22. Continue utilizing spiral development philosophy to incorporate PMS MIS IOC enhancements. The remaining development and testing of PMS SKED Prime IOC (shore based component) is expected to be completed and delivered. PMS SKED Instance IOC functionality (afloat functionality) including secure communications will be developed and tested. This will occur in line with any updates required by the Risk Management Framework for cybersecurity.					
FY 2023 Base Plans: PMS SKED Instance IOC testing is expected to be completed with various shipboard pilots identified and underway. Migration of ashore users into PMS SKED Prime IOC has commenced. Upon successful completion of the pilots, the upgraded PMS SKED Instance will be delivered to the Navy production environment (targeting CANES) for afloat users. The spiral development philosophy will continue to be used to incorporate PMS MIS and PMS SKED IOC enhancements. The Ships' 3-M development efforts will begin in late FY22 and the complete end-to-end testing and deployment will conclude prior to the end of FY23.					
FY 2023 OCO Plans: N/A					
FY 2022 to FY 2023 Increase/Decrease Statement:					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
FY23 increase of $0.491M supports contract requirements for upgraded PMS SKED test and delivery.					
Title: Strategic Planning &Forecasting (SPF) Upgrade	1.423	1.445	1.445	0.000	1.445
Articles:	-	-	-	-	-
Description: SPF is part of a suite of tools in NMMES that are utilized to assist Navy industrial activities in resource planning and long term workload forecasting to meet CNO strategic maintenance requirements through the gathering and compiling of workforce data. Two additional applications; 1) Performance Measurement and Control (PMC) and Quality Performance System (QPS) are interfaced with SPF to produce the staffing, planning and performance measurement analysis necessary to successfully accomplish work in navy industrial activities. All three of these applications have known software deficiencies, which limit productivity and require cumbersome manual adjustments of key planning, availability progress, and workload leveling progress reports. This data is reported to the CNO on a weekly basis and is shared with others such as the Joint Chiefs and Congress when requested. Historically to effectively operate and meet mission needs, the naval shipyards and RMCs have supplemented this suite with additional local spreadsheet and databases, adding to the complexity of replacing this aging solution. One goal of the SPF Upgrade is to eliminate these ad hoc databases and unify the solution to effectively operate in the targeted navy data center environment. The SPF Upgrade is part of the Service Life Extension that will address the accumulation of significant problems with this application, update the software platform, provide integrated metrics capabilities across naval shipyards and include accessibility of data by planners at headquarters. The SPF Upgrade will modernize the database architecture to provide fully functioning data warehouse environment that will eliminate the weekend long running of PMC jobs that hinders efficiency and productivity. The Upgrade will eliminate the currently required manual interfaces with other NMMES applications to produce a seamless real-time environment that can accommodate all project management metrics, as well as all ship maintenance related metrics. Additionally, it will eliminate the manual data gathering and consolidation efforts required to produce Shipyard Interim Metrics; and eliminate the need for Headquarters and each shipyard to maintain their own unique respective standalone data files. These efforts are in direct support of the CNO's Design for Maritime Superiority line of effort for the role of data in decision-making.					
FY 2022 Plans: Finalize functional and business process analysis and market analysis of commercial products. Select commercial package(s) and begin configuration and integration planning. Complete configuration of upgrade,					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
and begin testing in the consolidated environment once network circuit upgrades are complete for the SPF upgrade in preparation. ***FY 2023 Base Plans:*** Begin configuration and integration of the QPS and PMC components. Initiate testing of the end-to-end business processes in the toolset. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** NONE.					
Title: Financial Technical Upgrade ***Articles:*** ***Description:*** NMMES has two primary applications that are financial feeders; 1) SYMIS Mission Funded COST (aka COST) which processes cost related data for mission funded activities with the Standard Accounting & Reporting System - Field Level (STARS-FL); and 2) the SYMIS Pre & Post Payroll Processes which manages the Time & Attendance data from NMMES to the Defense Civilian Payroll System (DCPS). These applications are targeted for modernization to address the FOUR mandatory requirements: 1) meeting FISCAM and auditability requirements; 2) transitioning COST to interface with SABRS, vice STARS-FL no later than 30 September 2019; 3) both these applications are COBOL-based. COST utilizes a 1990s era Case tool (PACBASE) to generate COBOL-ready code. In 2015, vendor support for the PACBASE tool was transitioned to an IBM subsidiary in France (who in 2016 informed the Navy that support for the tool would end by 2018), hence without this tool the COST application cannot be updated and therefore must be refreshed in order to operate; and 4) the rapid increase in the cost of gaining sufficient COBOL licenses to operate these two applications in support of fleet maintenance has also created emerging execution year budget challenges for the Navy to such an extent that it is now more feasible to transition these applications to a non-COBOL solution than to continue in the current licensing structure. The Financial Technical Upgrade addresses these four urgent needs in order to continue operation of the NMMES system in support of ship and submarine maintenance operations. ***FY 2022 Plans:*** As the STARS-FL to SABRS transition completes, initiate pilots of COTS tools to identify and downselect to the preferred solution of G Invoicing as directed by the Department of Treasury. Deployment of select modules in the	2.860 -	1.570 -	3.250 -	0.000 -	3.250 -

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
replatformed toolset. Conduct training and deployment. Begin planning and requirements identification for future potential Navy ERP interface. ***FY 2023 Base Plans:*** Deploy new NMMES financial solution to shipyards and RMC production environments and begin potential Navy ERP interface. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 increase of $1.680M supports contract estimates of the deployment of replatformed code base/COTS product.					
Title: Material Management Upgrade	1.893	1.217	1.766	0.000	1.766
Articles:	-	-	-	-	-
Description: The Material Access Technology-Mission Funded (MATmf) application is used by all Naval Shipyards to manage and provide logistical support for services and materials manufactured, purchased and utilized in the overhaul, repair, and maintenance of ships and submarines. MATmf provides quantitative, financial, and status information on industrial materials. It monitors the shop stores in the shipyard and assesses the direct material inventories. MATmf has reached end-of-life and is operating on software components that are considered obsolete. A Service Life Extension is required to support the future capabilities (i.e. eTWD requirements), to correct sustainability issues, and to improve the ability to support current and future ships maintenance. While the upcoming MSE releases will consolidate application databases (including MATmf into a data center environment); it does not include material integration across shipyards nor provide usable real time material information or metrics across the ship maintenance community. The MSE releases will also not convert the outdated development code, eliminate the time cumbersome manual batch processing, nor fix a host of long term shortcomings affecting the efficiency of MATmf (including long time printing limitations affecting Material Control Tags and waterfront performance). Utilizing the findings from multiple LEAN events NAVSEA 08 and the Corporate Material Process Action Team have identified and documented many areas in MATmf that need enhancement to improve effectiveness. Some of these requirements include: 1) the ability to allow for Fiscal Year rollover of JMLs, 2) the ability to allow redistribution of bulk receipt inspected materials to other shipyards, 3) the ability to report transactions for BP28 assets, 4) improve the ability to create efficient processes for receipt of RFI tagged material into Shop Stores, 5) improve receipt of shipyard contracts into shipyard for receipt inspection, 6) allow DLR material in Shop Stores, 7) address transition to another handheld scanner as					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
the current handhelds are no longer available for purchase. These deficiencies will be addressed in the Material Management Upgrade. ***FY 2022 Plans:*** Conduct prototype testing and analysis to determine the best solution to meet ship maintenance requirements. After down selection initiate software configuration efforts. Begin functional testing of the replacement solution. Conduct Integration testing to ensure the planned solution meets performance requirements of NMMES System and external material management systems of record. This is dependent on the continued DISA network circuit procurement, installation, and cybersecurity protections that will support the Depot Maintenance user community Begin acceptance testing, training and deployment. Continued deployment of SMMS. ***FY 2023 Base Plans:*** Additional development, integration, and user acceptance testing to SMMS to moving into government cloud environment. Additional modules to incorporate functionality of more local material apps developed, acceptance tested by users, and FMA users trained, as necessary by corporate needs. Sustainment of current SMMS application. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 increase of $0.549M supports contract estimates of the SMMS to moving into government cloud environment.					
Title: NMMES -- Maritime Systems Environment (MSE) -- Database Optimization	2.775	2.160	1.890	0.000	1.890
Articles:	-	-	-	-	-
Description: The NMMES system is presently undergoing modernization to address cyber security deficiencies, consolidate and align databases across multiple data instances, and to transition the solution into an approved Component Enterprise Data Center (CEDC). Once the transition from four geographically dispersed instances to the CEDC is complete and has reached stability MSE Database will be optimized to gain throughput efficiencies, capitalize on economies of scale, and rationalize data structures to streamline the use of authoritative data and to provide standardized access to data across the fleet maintenance enterprise. MSE is live at the RMCs, FDRMC, and SRF. NSYs and NSSF will transition to the MSE UNNPI environment in FY20-21. ***FY 2022 Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Continue analyzing legacy system data and component application database structures to discover opportunities for efficiency gains through the implementation of streamlined database designs which are key in supporting analytics and database decision making. Plan a Phase 2 roll-out of the Business Intelligence and Business Warehouse solution. ***FY 2023 Base Plans:*** Continue efforts by implementing MSE system wide data optimization and normalization to cohesively and seamlessly integrate multiple component databases using modern database schema designs and remove redundant application specific stored procedural codes embedded in databases. Plan to eliminate duplication of stored data and unnecessary procedural programming code in databases to directly support mission critical data analytics and dramatically increase system efficiency and computational speed. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 decrease of $0.270M due expected licenses cost savings by optimizing databases.					
Title: SUPDESK - Timekeeping For All ***Articles:*** ***Description:*** The current timekeeping system (SUPDESK) at the shipyards allows managers to input time for their employees. This is considered a financial compliance issue and requires the system be adjusted to allow all shipyard workers to input and certify their individual time. Will also add the capability to track and certify overtime approvals. Supports efforts to close a financial audit finding by enabling time attestation for all employees. ***FY 2022 Plans:*** Begin software development and integration with NMMES. Begin functional testing of the replacement solution. Conduct integration testing to insure end to end data flow meet compliance requirements. ***FY 2023 Base Plans:*** Continue integration; begin training and deployment with the activities. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:***	1.450 -	1.450 -	0.738 -	0.000 -	0.738 -

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
FY23 decease of $0.712M due to the completion of software development, support integration and training.					
Title: MSE Waterfront Process Improvement	0.250	0.765	1.050	0.000	1.050
Articles:	-	-	-	-	-
Description: The Maritime Systems Environment (MSE) Waterfront Processes Improvement project is focusing on aligning the NMMES toolset to compliment waterfront industrial processes changes that were recommended based on the outcomes of multiple LEAN events. This is a multi-year initiative to not only address the backlog of LEAN recommendations in the ship maintenance community, but to also provide the impetus to accelerate the implementation of additional process improvements to gain further economies in the maintenance community. ***FY 2022 Plans:*** Conduct analysis on the LEAN findings and incorporate into enhancements on future releases in the consolidated baseline at CEDC Charleston. Increase customer engagement and continue process improvement initiatives. Align tools to include rationalization of functionality into a consolidated NMMES toolset. Finalize the process for the agile software development methodology, and deploy the solution for multiple projects. Complete installation of network improvements providing faster response of data for waterfront personnel in the ship maintenance community. ***FY 2023 Base Plans:*** Incorporate change requests for remaining items on LEAN backlog and updates into the existing systems. Conduct LEAN Rapid Improvement Event to capture new process improvement initiatives. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 increase of $0.285M supports the process to integrate, test, and deploy become more agile for waterfront execution efforts.					
Title: Enterprise Data Analytics	1.843	2.040	1.150	0.000	1.150
Articles:	-	-	-	-	-
Description: Establish capability to fully utilize navy authoritative maintenance data to develop predictive analysis and gain efficiencies in ship availabilities to provide data driven decisions based on current information. ***FY 2022 Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Continue integration, configuration, and deployments of selected toolset(s) as functionality is delivered based on lessons learned, user community feedback, leadership direction, and data quality improvements. ***FY 2023 Base Plans:*** Continue integrating data sets from depot and intermediate maintenance applications to improve data visualization and analysis across the maintenance enterprise. Conduct efforts to provide automatic retrieval of information from various corporate systems that are manually performed on a daily basis, thereby eliminating the manual and laborious burden, ensuring consistency of data retrieval, and maintaining the pedigree of data collection. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 increase of $0.89M due to the completion of training and maturity of the user community (train the trainer). Will maintain an open community of practice when additional training is necessary.					
Title: Product Data Management Integration	0.835	0.750	0.250	0.000	0.250
Articles:	-	-	-	-	-
Description: Modify the NMMES solution to be able to utilize the 3-D Product model information being delivered to the Navy by the shipbuilders for the Ford and Columbia Classes. Both the Ford Class Carrier and Columbia Class Submarine Programs are being designed, built and delivered utilizing 3-D integrated product models. Configuration and technical information will be provided to the government in electronic format rather than via paper-based drawings. The current suite of Shore Maintenance applications cannot accept the data delivered by either program, which will impact the ability of the shore Maintenance Community to maintain and modernize these platforms. This is required to support the USS FORD Planned Incremental Availability (PIA) at Norfolk Naval Shipyard as well as future maintenance availabilities on both classes. ***FY 2022 Plans:*** Continue configuration, integration, and testing activities. Correct deficiencies identified during the testing processes. Initiate deployment in alignment with the rest of the NMMES modules as usable features become available. Expand deployment capability across the NAVSEA community from the initial localized deployment sites. ***FY 2023 Base Plans:***					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Finalize data integration and manipulation standards, policies, and practices to support COLUMBIA Class, FORD Class, and VIRGINIA Block V. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 increase of $0.500M due to planned completion of data integration.					
Title: Local Application Rationalization	1.030	0.660	1.030	0.000	1.030
Articles:	-	-	-	-	-
Description: Several local applications provide site-specific augmentation to the NMMES toolset due to the historically distributed environment. The project rationalizes application to provide standardized functionality across the shore maritime maintenance community in line with the centralized hosting. This requires reviewing local application functionality and to determine which application functionality should be migrated. ***FY 2022 Plans:*** Continue analysis of local applications for rationalization into MSE. Begin planning and design for the standardization, configuration/integration of specific functionality into the NMMES portfolio. Progress planning and design for the standardization, configuration/integration into NMMES portfolio. Configuration and integration to incorporate the required end-to-end functionality into the centrally hosted single instance of the NMMES system. ***FY 2023 Base Plans:*** Consolidate required functionality of selected local naval shipyard applications that extend functionality beyond the aging shipyard IT systems. Continue to enhance the MSE suite of applications and implement local application functionality as older government made software is re-platformed or replaced with commercial off-the-shelf (COTS) software. Improve product support with consolidated functionality in fewer software applications. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:***					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
FY23 increase of $0.370M supports Risk Management Framework cybersecurity assurances processes during the integration efforts.					
Title: Mobility Solutions	1.944	1.341	0.547	0.000	0.547
Articles:	-	-	-	-	-
Description: Establish a "go everywhere" capability for the NMMES system at the Regional Maintenance Centers and Naval Shipyards. Include the capability to retrieve authoritative information across multiple, secure devices, (i.e. tablets, digital readers, scanners, etc.) to continue to exploit a paperless arena. ***FY 2022 Plans:*** Expand to aircraft carriers, test requirements and develop processes to support remote support, primarily photo. Continue expanding application availability for mobile devices. ***FY 2023 Base Plans:*** Identify electronic controls required to secure information on mobile devices and define technical attributes to support the expansion to include wearable devices as well as expand to video and voice from inside ship hulls. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 decease of $0.794M due to expanding application availability for mobile devices.					
Accomplishments/Planned Programs Subtotals	21.530	16.579	17.474	0.000	17.474

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The backbone of the present solution is a set of dated information technology (IT) products that have exceeded or are approaching end-of-life and do not meet the increasingly digitized operating environment. In order to ensure that the IT toolset continued functioning as required the Fleet Maintenance Board of Directors approved the establishment of the NAVSEA PMO-IT to oversee the selected development and sustainment efforts of this solution; to acquire and manage the IT resources necessary to gain further efficiencies in the toolset; and to transition this solution to a more modern and efficient end state. Selected modernizations, utilizing Commercial Off The Shelf (COTS) are aligned with ongoing sustainment to provide an IT solution until a COTS based Technical Refresh of this solution can be completed and

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deployed. Existing IT contracts will be used for sustainment services along with Other Transaction Agreements (OTA) and existing delivery orders to support required services at the waterfront.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	C/CPFF	NAVSEA : WNY, D.C.	222.567	21.530	Nov 2020	16.579	Oct 2021	17.474	Oct 2022	-		17.474	Continuing	Continuing	Continuing
Software Development	WR	NSLC : Mechanicsburg, PA	15.999	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Advance Planning Analysis	WR	NAVWAR : Arlington, VA	7.471	0.000		0.000		0.000		-		0.000	0.000	7.471	-
Advance Planning Analysis	C/CPFF	NAVSEA : WNY, D.C.	33.474	0.000		0.000		0.000		-		0.000	0.000	33.474	-
Advance Planning Analysis	C/CPFF	NSWC PHD : Port Hueneme, CA	5.000	0.000		0.000		0.000		-		0.000	0.000	5.000	-
		Subtotal	284.511	21.530		16.579		17.474		-		17.474	Continuing	Continuing	N/A

Remarks

Program plans to execute all contract awards for software development of shipyard and national systems through the NAVSEA SEAPORT vehicle and other competitively awarded contracts.

	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	284.511	21.530		16.579		17.474		-		17.474	Continuing	Continuing	N/A

Remarks

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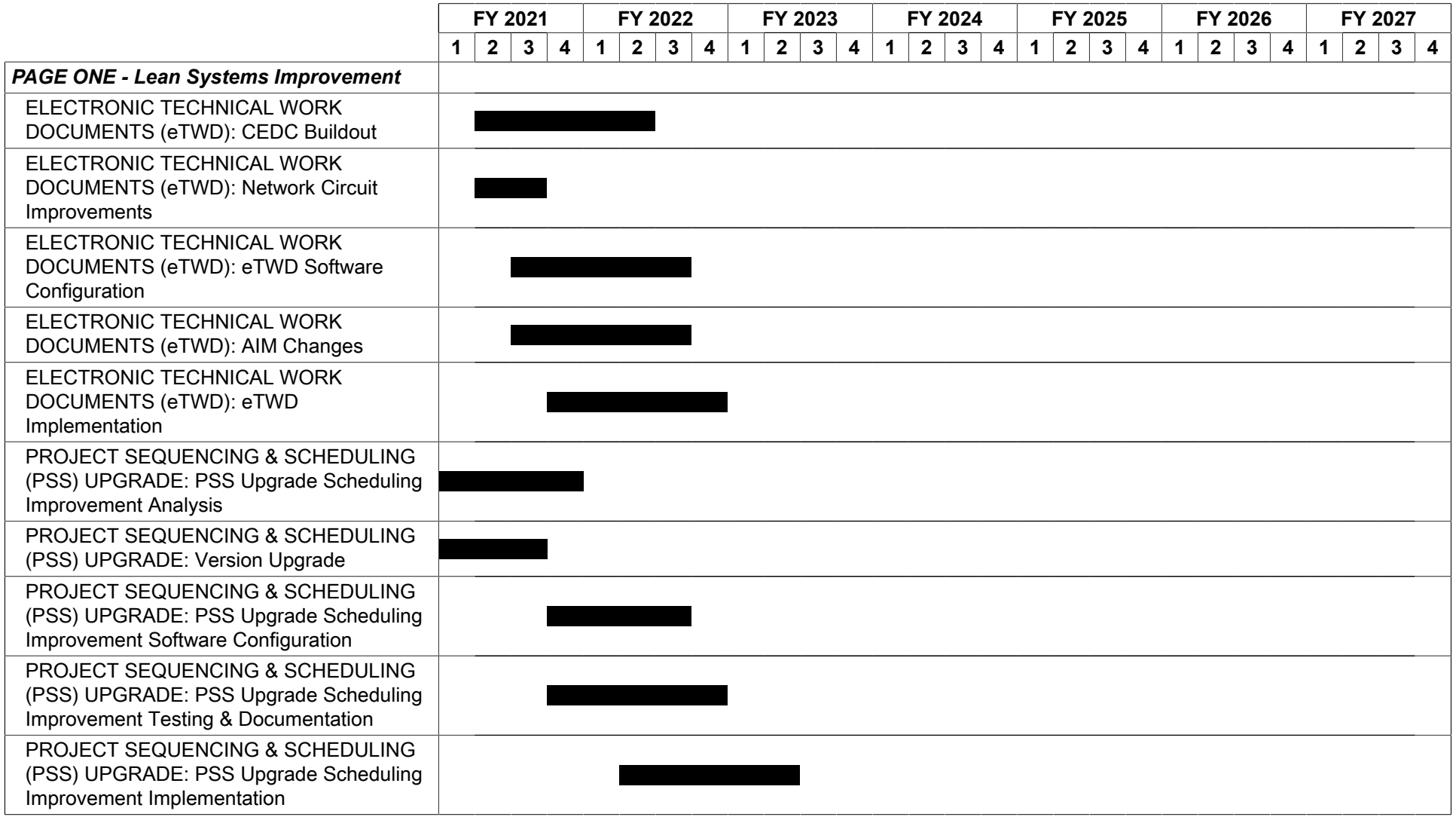

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
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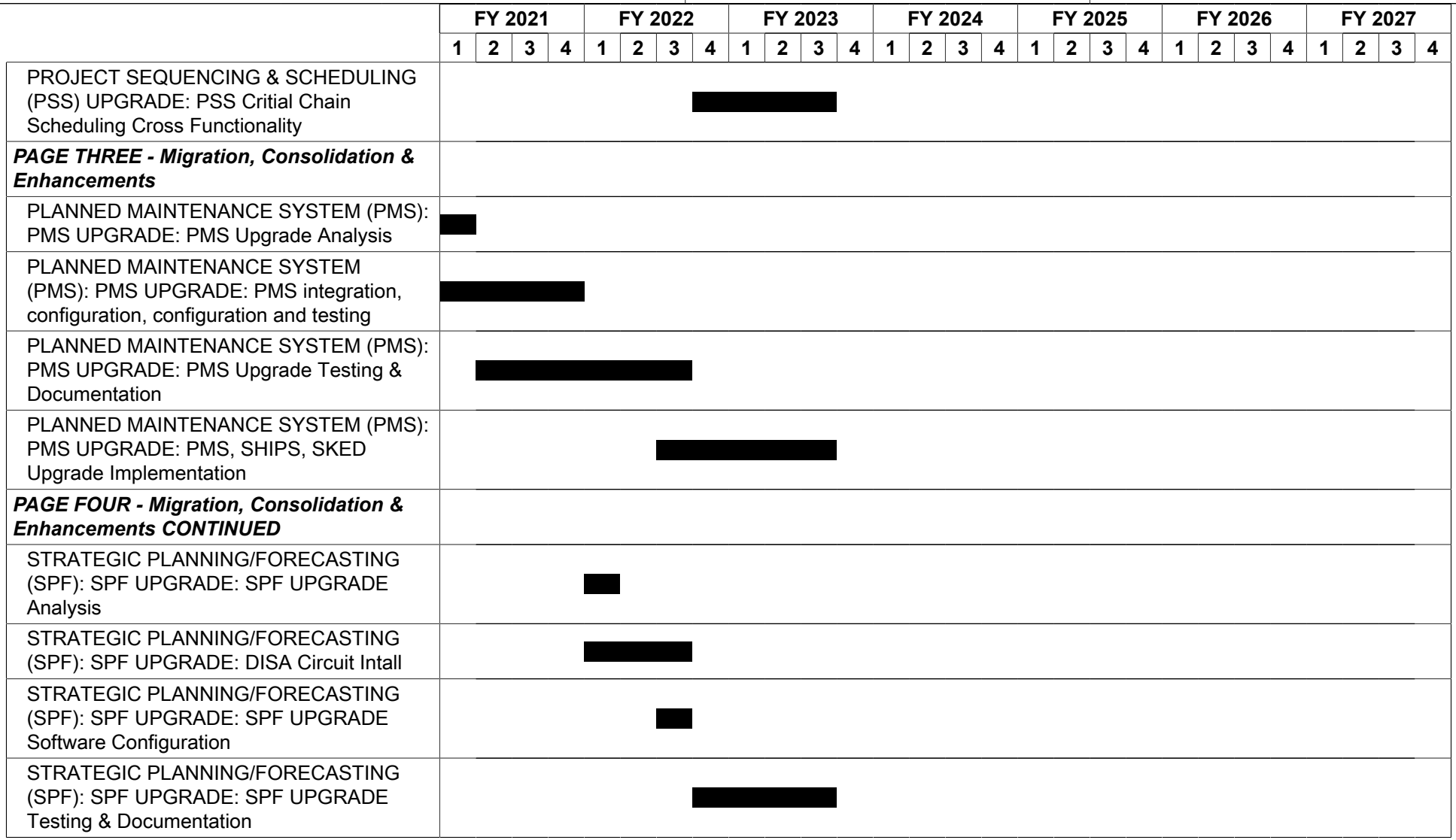

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
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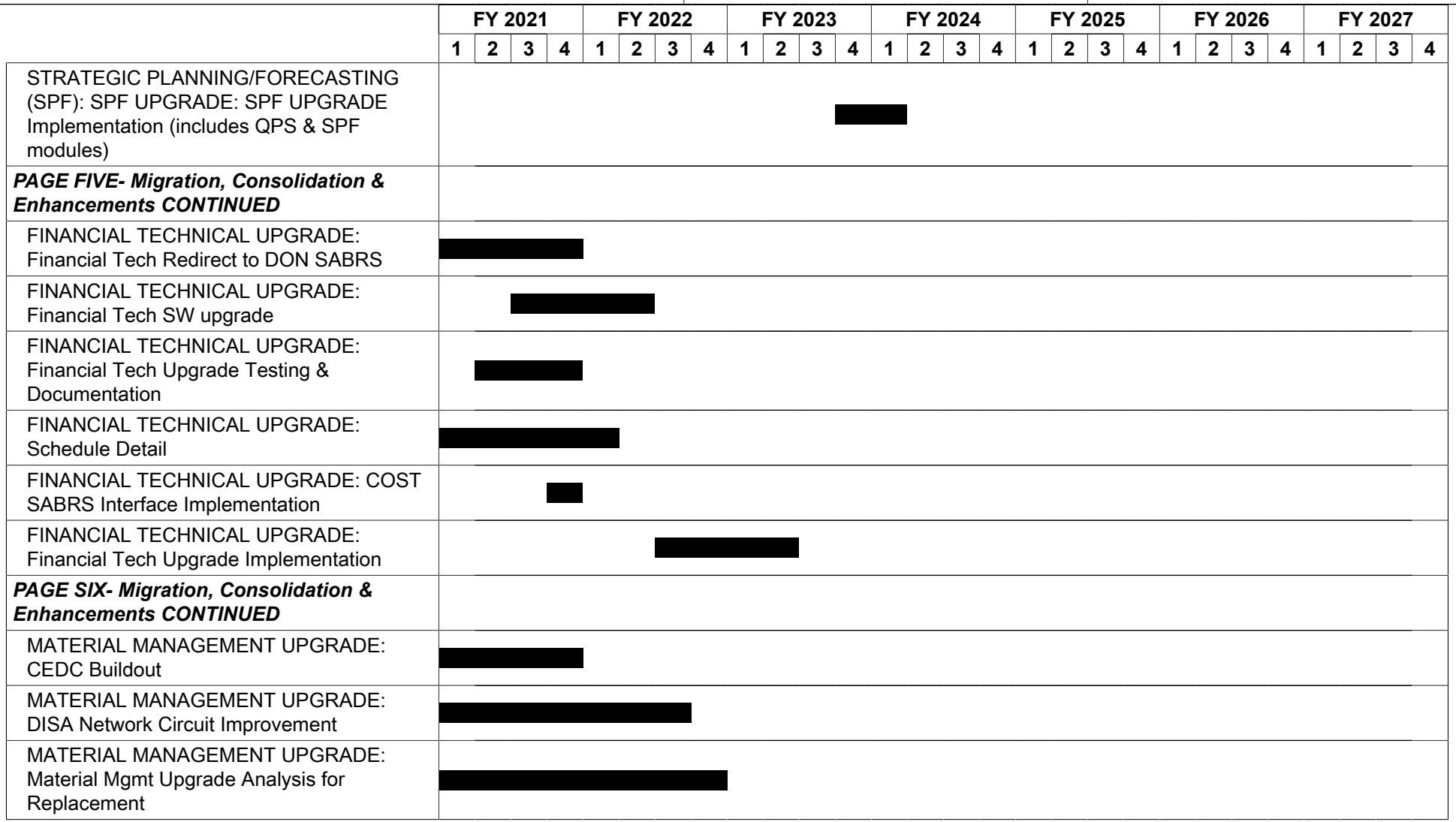

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
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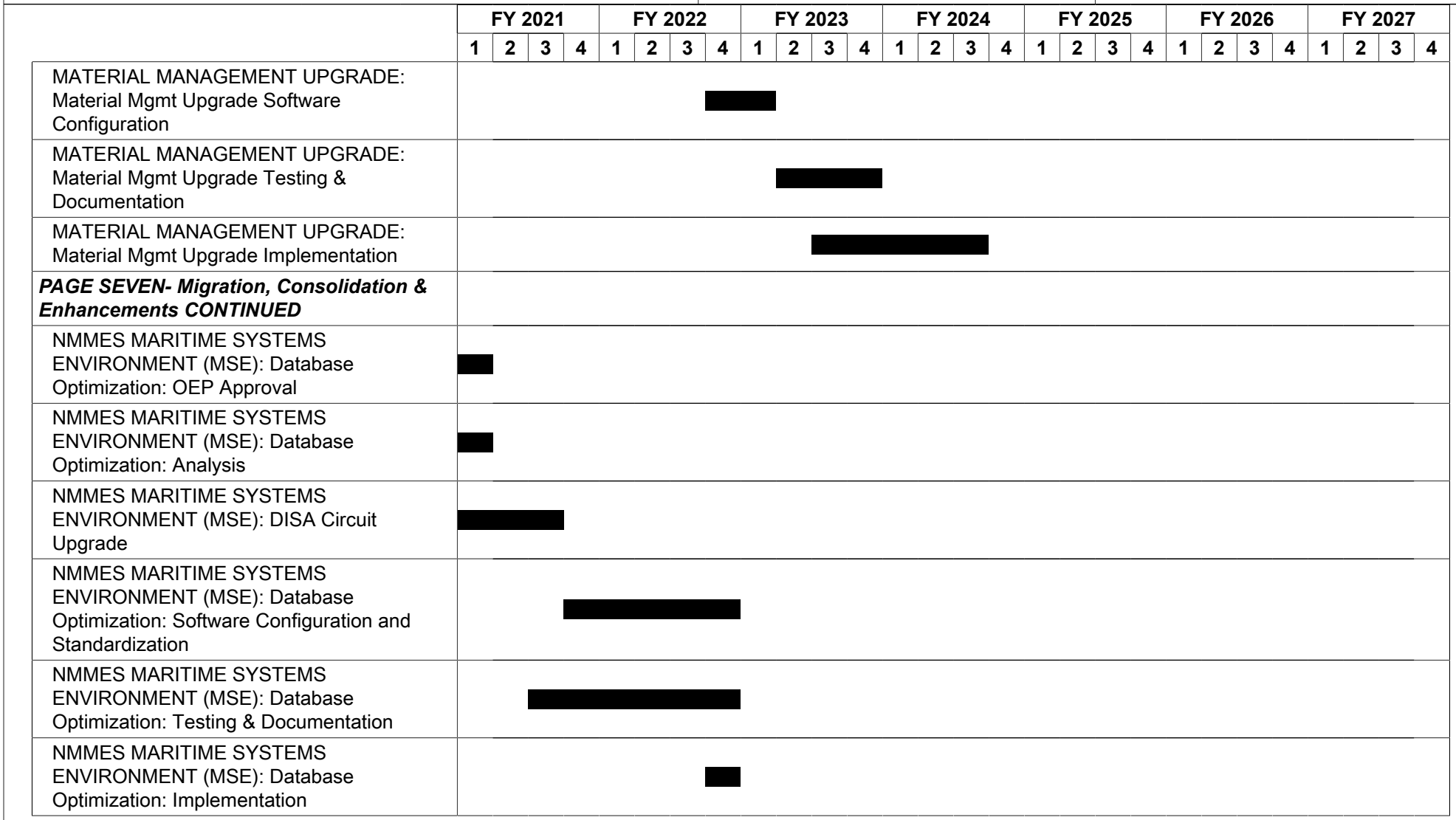

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2904 / *NAVSEA IT*

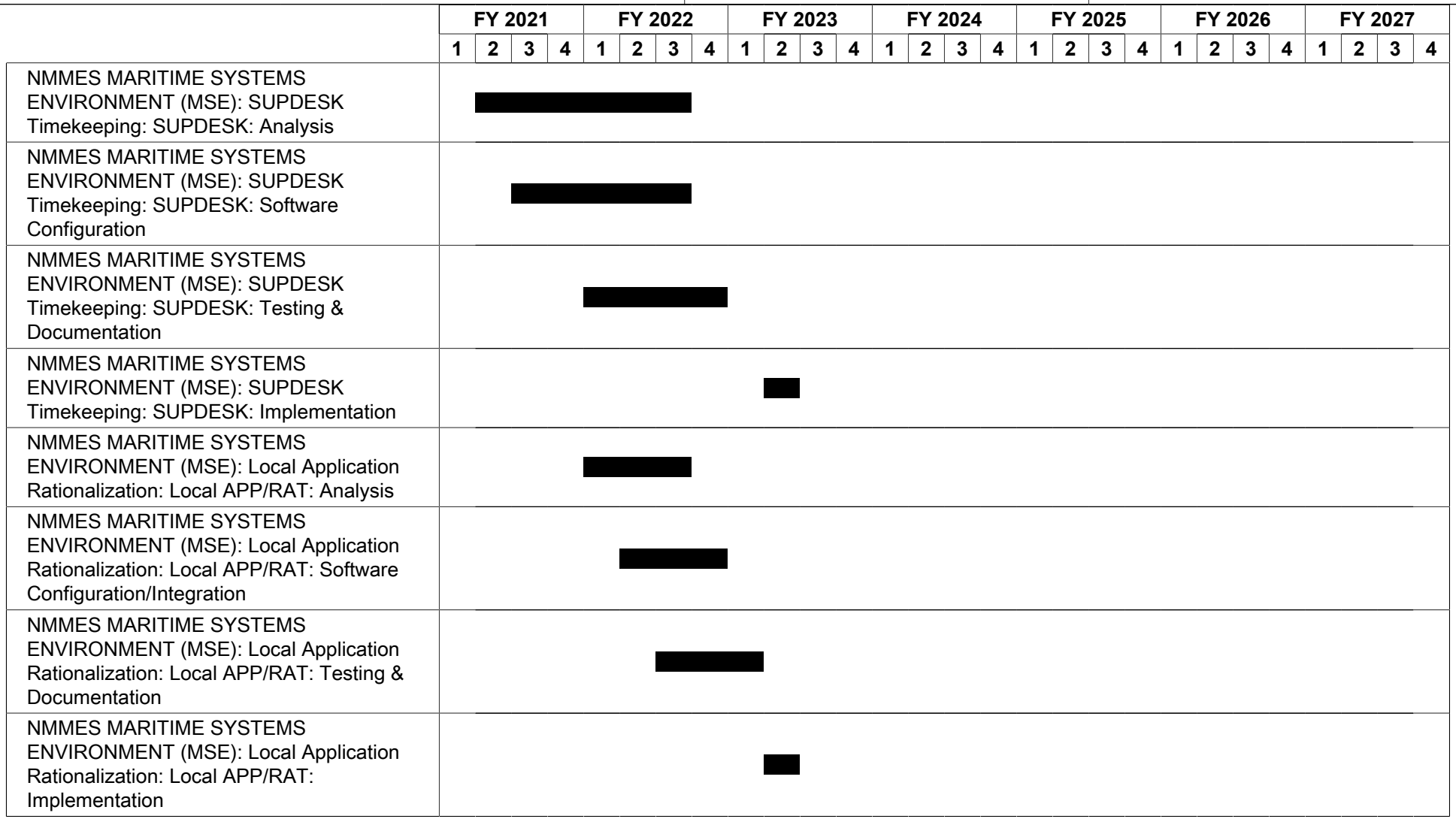

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
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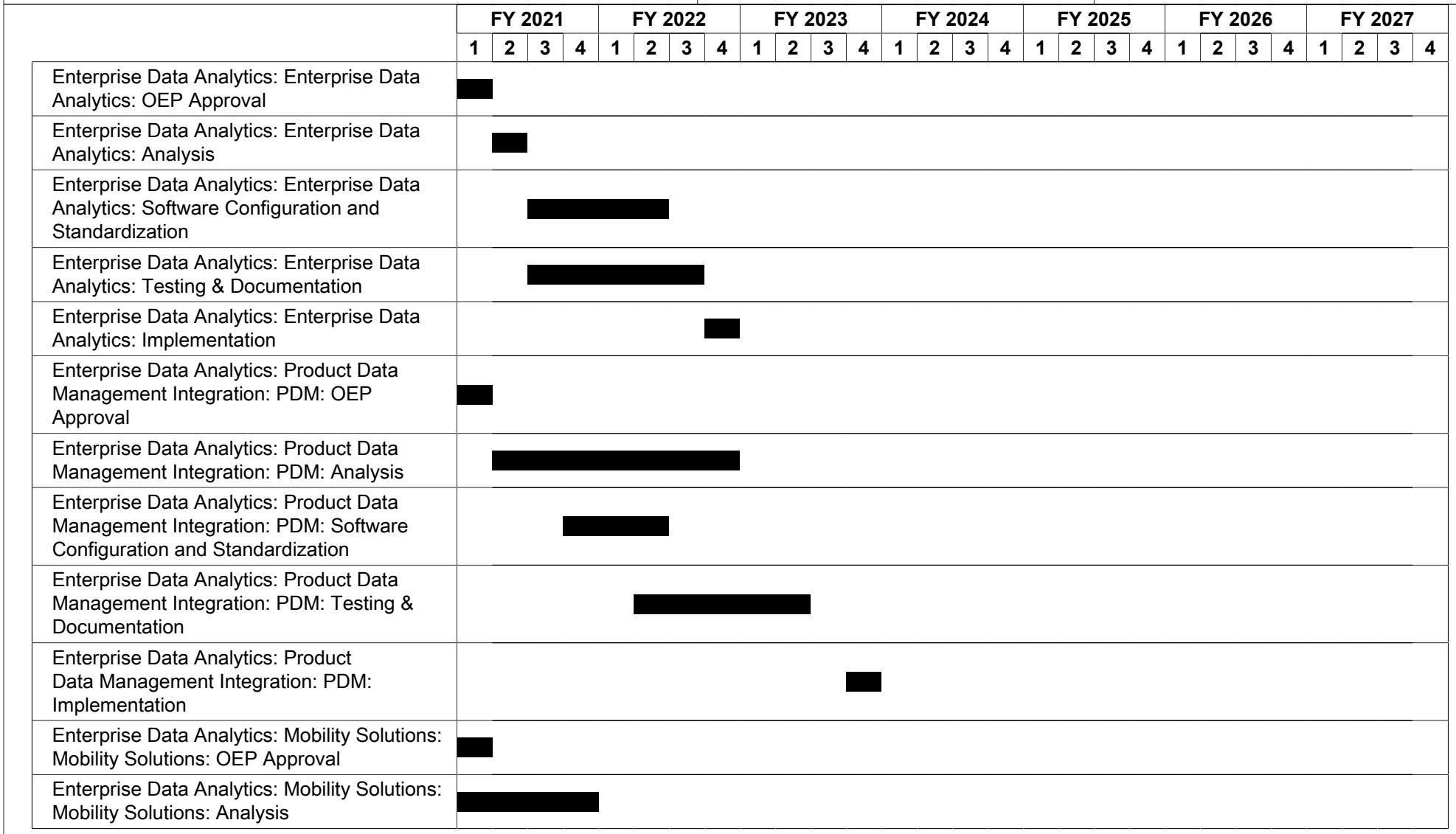

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
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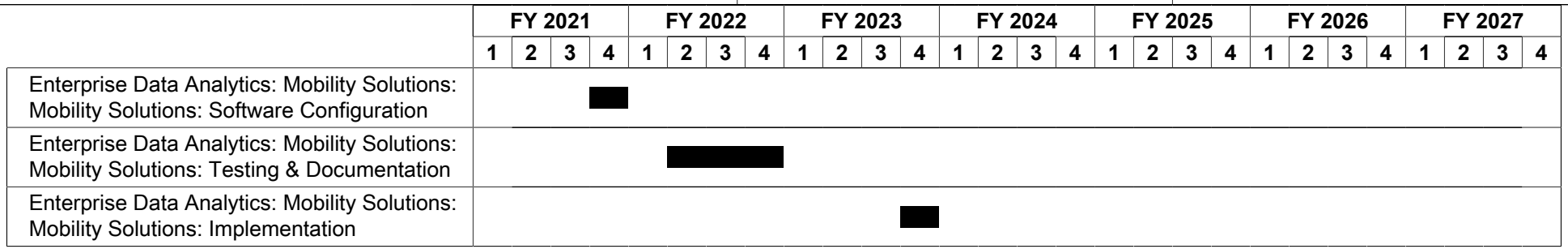

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
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Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
PAGE ONE - Lean Systems Improvement				
ELECTRONIC TECHNICAL WORK DOCUMENTS (eTWD): CEDC Buildout	2	2021	2	2022
ELECTRONIC TECHNICAL WORK DOCUMENTS (eTWD): Network Circuit Improvements	2	2021	3	2021
ELECTRONIC TECHNICAL WORK DOCUMENTS (eTWD): eTWD Software Configuration	3	2021	3	2022
ELECTRONIC TECHNICAL WORK DOCUMENTS (eTWD): AIM Changes	3	2021	3	2022
ELECTRONIC TECHNICAL WORK DOCUMENTS (eTWD): eTWD Implementation	4	2021	4	2022
PROJECT SEQUENCING & SCHEDULING (PSS) UPGRADE: PSS Upgrade Scheduling Improvement Analysis	1	2021	4	2021
PROJECT SEQUENCING & SCHEDULING (PSS) UPGRADE: Version Upgrade	1	2021	3	2021
PROJECT SEQUENCING & SCHEDULING (PSS) UPGRADE: PSS Upgrade Scheduling Improvement Software Configuration	4	2021	3	2022
PROJECT SEQUENCING & SCHEDULING (PSS) UPGRADE: PSS Upgrade Scheduling Improvement Testing & Documentation	4	2021	4	2022
PROJECT SEQUENCING & SCHEDULING (PSS) UPGRADE: PSS Upgrade Scheduling Improvement Implementation	2	2022	2	2023
PROJECT SEQUENCING & SCHEDULING (PSS) UPGRADE: PSS Critial Chain Scheduling Cross Functionality	4	2022	3	2023
PAGE THREE - Migration, Consolidation & Enhancements				
PLANNED MAINTENANCE SYSTEM (PMS): PMS UPGRADE: PMS Upgrade Analysis	1	2021	1	2021
PLANNED MAINTENANCE SYSTEM (PMS): PMS UPGRADE: PMS integration, configuration, configuration and testing	1	2021	4	2021

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
PLANNED MAINTENANCE SYSTEM (PMS): PMS UPGRADE: PMS Upgrade Testing & Documentation	2	2021	3	2022
PLANNED MAINTENANCE SYSTEM (PMS): PMS UPGRADE: PMS, SHIPS, SKED Upgrade Implementation	3	2022	3	2023
PAGE FOUR - Migration, Consolidation & Enhancements CONTINUED				
STRATEGIC PLANNING/FORECASTING (SPF): SPF UPGRADE: SPF UPGRADE Analysis	1	2022	1	2022
STRATEGIC PLANNING/FORECASTING (SPF): SPF UPGRADE: DISA Circuit Intall	1	2022	3	2022
STRATEGIC PLANNING/FORECASTING (SPF): SPF UPGRADE: SPF UPGRADE Software Configuration	3	2022	3	2022
STRATEGIC PLANNING/FORECASTING (SPF): SPF UPGRADE: SPF UPGRADE Testing & Documentation	4	2022	3	2023
STRATEGIC PLANNING/FORECASTING (SPF): SPF UPGRADE: SPF UPGRADE Implementation (includes QPS & SPF modules)	4	2023	1	2024
PAGE FIVE- Migration, Consolidation & Enhancements CONTINUED				
FINANCIAL TECHNICAL UPGRADE: Financial Tech Redirect to DON SABRS	1	2021	4	2021
FINANCIAL TECHNICAL UPGRADE: Financial Tech SW upgrade	3	2021	2	2022
FINANCIAL TECHNICAL UPGRADE: Financial Tech Upgrade Testing & Documentation	2	2021	4	2021
FINANCIAL TECHNICAL UPGRADE: Schedule Detail	1	2021	1	2022
FINANCIAL TECHNICAL UPGRADE: COST SABRS Interface Implementation	4	2021	4	2021
FINANCIAL TECHNICAL UPGRADE: Financial Tech Upgrade Implementation	3	2022	2	2023
PAGE SIX- Migration, Consolidation & Enhancements CONTINUED				
MATERIAL MANAGEMENT UPGRADE: CEDC Buildout	1	2021	4	2021
MATERIAL MANAGEMENT UPGRADE: DISA Network Circuit Improvement	1	2021	3	2022
MATERIAL MANAGEMENT UPGRADE: Material Mgmt Upgrade Analysis for Replacement	1	2021	4	2022

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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MATERIAL MANAGEMENT UPGRADE: Material Mgmt Upgrade Software Configuration	4	2022	1	2023
MATERIAL MANAGEMENT UPGRADE: Material Mgmt Upgrade Testing & Documentation	2	2023	4	2023
MATERIAL MANAGEMENT UPGRADE: Material Mgmt Upgrade Implementation	3	2023	3	2024
PAGE SEVEN- Migration, Consolidation & Enhancements CONTINUED				
NMMES MARITIME SYSTEMS ENVIRONMENT (MSE): Database Optimization: OEP Approval	1	2021	1	2021
NMMES MARITIME SYSTEMS ENVIRONMENT (MSE): Database Optimization: Analysis	1	2021	1	2021
NMMES MARITIME SYSTEMS ENVIRONMENT (MSE): DISA Circuit Upgrade	1	2021	3	2021
NMMES MARITIME SYSTEMS ENVIRONMENT (MSE): Database Optimization: Software Configuration and Standardization	4	2021	4	2022
NMMES MARITIME SYSTEMS ENVIRONMENT (MSE): Database Optimization: Testing & Documentation	3	2021	4	2022
NMMES MARITIME SYSTEMS ENVIRONMENT (MSE): Database Optimization: Implementation	4	2022	4	2022
NMMES MARITIME SYSTEMS ENVIRONMENT (MSE): SUPDESK Timekeeping: SUPDESK: Analysis	2	2021	3	2022
NMMES MARITIME SYSTEMS ENVIRONMENT (MSE): SUPDESK Timekeeping: SUPDESK: Software Configuration	3	2021	3	2022
NMMES MARITIME SYSTEMS ENVIRONMENT (MSE): SUPDESK Timekeeping: SUPDESK: Testing & Documentation	1	2022	4	2022
NMMES MARITIME SYSTEMS ENVIRONMENT (MSE): SUPDESK Timekeeping: SUPDESK: Implementation	2	2023	2	2023
NMMES MARITIME SYSTEMS ENVIRONMENT (MSE): Local Application Rationalization: Local APP/RAT: Analysis	1	2022	3	2022

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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
NMMES MARITIME SYSTEMS ENVIRONMENT (MSE): Local Application Rationalization: Local APP/RAT: Software Configuration/Integration	2	2022	4	2022
NMMES MARITIME SYSTEMS ENVIRONMENT (MSE): Local Application Rationalization: Local APP/RAT: Testing & Documentation	3	2022	1	2023
NMMES MARITIME SYSTEMS ENVIRONMENT (MSE): Local Application Rationalization: Local APP/RAT: Implementation	2	2023	2	2023
Enterprise Data Analytics: Enterprise Data Analytics: OEP Approval	1	2021	1	2021
Enterprise Data Analytics: Enterprise Data Analytics: Analysis	2	2021	2	2021
Enterprise Data Analytics: Enterprise Data Analytics: Software Configuration and Standardization	3	2021	2	2022
Enterprise Data Analytics: Enterprise Data Analytics: Testing & Documentation	3	2021	3	2022
Enterprise Data Analytics: Enterprise Data Analytics: Implementation	4	2022	4	2022
Enterprise Data Analytics: Product Data Management Integration: PDM: OEP Approval	1	2021	1	2021
Enterprise Data Analytics: Product Data Management Integration: PDM: Analysis	2	2021	4	2022
Enterprise Data Analytics: Product Data Management Integration: PDM: Software Configuration and Standardization	4	2021	2	2022
Enterprise Data Analytics: Product Data Management Integration: PDM: Testing & Documentation	2	2022	2	2023
Enterprise Data Analytics: Product Data Management Integration: PDM: Implementation	4	2023	4	2023
Enterprise Data Analytics: Mobility Solutions: Mobility Solutions: OEP Approval	1	2021	1	2021
Enterprise Data Analytics: Mobility Solutions: Mobility Solutions: Analysis	1	2021	4	2021
Enterprise Data Analytics: Mobility Solutions: Mobility Solutions: Software Configuration	4	2021	4	2021
Enterprise Data Analytics: Mobility Solutions: Mobility Solutions: Testing & Documentation	2	2022	4	2022
Enterprise Data Analytics: Mobility Solutions: Mobility Solutions: Implementation	4	2023	4	2023

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy										Date: April 2022		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0605013N / *Information Technology Development*				Project (Number/Name) 2905 / *BUPERS IT*			
COST ($ in Millions)	**Prior Years**	**FY 2021**	**FY 2022**	**FY 2023 Base**	**FY 2023 OCO**	**FY 2023 Total**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**Cost To Complete**	**Total Cost**
2905: *BUPERS IT*	271.239	133.102	140.520	145.401	-	145.401	114.438	68.420	4.388	3.947	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

MyNavy Human Resources (HR) Transformation - formerly known as Manpower, Personnel, Training & Education (MPT&E) Transformation -- will change how HR services are provided throughout a Sailor's entire "Hire-to-Retire" lifecycle and improve fleet combat readiness. By streamlining processes and systems, MyNavy HR will improve the speed, accuracy, and quality of personnel and pay services, better positioning the Navy to equip and manage its people.

This effort is the linchpin of the Navy's MPT&E Business IT Transformation strategy that stems from investing in programs that directly align with the Sailor 2025 vision. The current 70-year-old business processes and 40-year-old obsolete IT systems will not sustain Fleet anticipated growth and is neither cost efficient nor effective. MyNavy HR involves revolutionary change by using agile delivery model to the greatest extent possible to implement business IT products using the Industry Best Practices Model (e.g., early investment for largest ROI, rapid prototyping, and vanilla COTS products usage.) MyNavy HR is a fully integrated portfolio of IT Systems organized into five distinct pillars: Navy Personnel and Pay (NP2), Learning Stack (LS), Enterprise Customer Relationship Management (eCRM), Single Point of Entry (SPOE), and Authoritative Data Environment (ADE). This portfolio of systems serves as the cornerstone of the OPNAV N1 MyNavy HR strategy.

The impetus for building an adaptive family of systems is gearing MyNavy HR Transformation towards customer needs. The traditional waterfall delivery methodology of IT goods and services cannot meet the emergent requirements evolving from shortened technical obsolescence. Thus, MyNavy HR Transformation will employ an Agile delivery method that is highly structured, with a repeatable software development approach designed to quickly deliver usable capability to the end user. These capabilities are packaged as Minimum Viable Products (MVPs) which are routinely delivered to the customer for their use and evaluation. Favorably received MVPs are subsequently refined and integrated into a production baseline.

Rapidly integrating a family of systems using an agile methodology necessitates an overarching system integrator and coordinator to ingest pilots and prototypes into a technical baseline. The Transformation Portfolio Coordinator & Production (TPC&P) contract is an IDIQ contract that will deliver a family of systems in support of MyNavy HR. This contract will provide the Global Design & Strategic Planning to baseline the "55 to 1" technical execution plan and will articulate the "system of systems" baseline release. Additionally, pilots and prototypes that have reached sufficient maturity will be integrated and deployed into the production baseline under this contract.

AUTHORITATIVE DATA ENVIRONMENT (ADE)
The Authoritative Data Environment (ADE) is an enterprise information management system that will migrate the existing legacy data warehouses into a central data repository that is composed of a data warehouse, data lake, data management tools and an Application Program Interface (API) Layer.
ADE will provide an authoritative data-sharing framework, leveraging scalable and interoperable technologies as well as business intelligence and data analytic capabilities.

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ADE will need to interface and integrate with SPOE and all MyNavy HR transactional and business systems, including enabling 'plug & play' of new services, technologies, and system capabilities. Some of the key principles of ADE include:
1. Flexible architecture and scalable design.
2. Data Governance to produce authoritative, cleansed, conformed, consolidated, and calculated data.
3. Data Access to specified users.
4. Master Data Management (core elements, metadata tagging, business rules, standards, metrics, and tools).
5. Data analytics and business intelligence (descriptive, prescriptive, and predictive).
6. Identification, development, and maintenance of enterprise data policies.

ENTERPRISE CUSTOMER RELATIONSHIP MANAGEMENT (eCRM)
The eCRM solution will integrate business processes, supporting systems, and authoritative data in support of Navy Personnel Command's (NPC's) MNCC (My Navy Career Center), Navy Recruiting Command (NRC), Navy Education & Training Command (NETC), and other commands that manage the Navy workforce.
The eCRM solution provides an approach to manage information on current and future Sailors, veterans, and their families. The eCRM solution is organized by the following segments:
1. Sales Management - recording all stages of the prospecting process to include contact management, leads tracking, forecasting and initial processing.
2. Knowledge Management - providing the tools for identifying, capturing, evaluating, retrieving, and sharing information assets.
3. Case Management - supporting the automation of processes to formulate opinions, approvals, and fulfillment of case related requests.
4. Performance Management- supporting the performance of Navy Sailors.
5. Recruiting - eCRM capabilities provide several functions in support of the Navy's recruiting needs, to include:
A. Provide personally identifiable information (PII) in a commercial cloud platform.
B. Provide ability for users to access mobile platforms.
C. Meet Navy Cybersecurity requirements to protect Impact Level (IL) 4 data and will achieve an Authority to Operate (ATO) from the Navy Authorizing Official (NAO).
D. Support non-recruiting activities and address case management and knowledge management. Case management functionality supports tracking incidents, and knowledge management provides for sharing and collaborating across various business areas.

LEARNING STACK (LS)
The Learning Stack will provide a cloud-based material solution that will streamline learning management (course/content delivery and assessments), capture and record interactive learning experiences, enable curriculum authoring and development, provide student Sailor registration and administration, create and regulate course/student scheduling, and offer e-learning capabilities, such as distance learning.

The Learning Stack is a delivery vehicle for the following core objectives of the Ready Relevant Learning (RRL) initiative:

Learning Management System (LMS) with Assessments
Learning Record Store (LRS)

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Curriculum Development System (CDS)
Student Information System (SIS)
Enterprise Resource Scheduler (ERS)
Collaborative Learning Environment (CLE)

The Learning Stack is one of three lines of effort that is the Navy's strategy for it learning continuum. The other two are RRL content modernization, and the Training Network infrastructure. Collectively, these three individual efforts will cultivate instruction content that meets Fleet validated needs (ashore and afloat), and provide keystone delivery mechanisms that will decrease training timelines, assimilate operational agility, and improve overall mission readiness.

Additionally, the Learning Stack supports the MyNavy HR Transformation Program that includes yet expands beyond the RRL core initiatives identified above. In support of the broader MyNavy HR enterprise, the Learning Stack will provide a centralized, authoritative repository for Interactive Multimedia Instruction (IMI) courseware, officer and citizen development (NJROTC and ROTC candidate management), enlisted advancement exam development and distribution, enlisted degree completions, and tuition assistance authorizations.

The RRL and MyNavy HR Transformation initiatives require the development of Learning Stack capabilities that permit:

1. Mobile & flexible delivery of modular training to the Sailor
2. Synchronization of work requirements with learning modules to ensure proper training delivery
3. Leveraging cloud-hosted capabilities to optimize the Learning Stack delivery model

NAVY PERSONNEL AND PAY (NP2)
A 2015 analysis of alternatives for integration of personnel and pay capabilities recommended the use of Oracle PeopleSoft 9.2 with Global Payroll for achieving the Navy's Personnel and Pay IT needs. Follow-on analysis conducted as part of the MyNavy HR Transformation efforts in 2016 and 2017 indicated that the most cost effective approach to achieving the Transformation goals of modernizing HR Business System IT consistent with industry best practices was de-customization of the Navy Standard Integrated Personnel System (NSIPS) which uses Oracle PeopleSoft as its core technology, integration with Global Payroll, use of General Ledger to maximize auditability and accounting functions and hosting of the integrated solution. Navy Personnel and Pay (NP2) will sustain and develop the core system of systems architecture; executing pilot programs and iterative development of capabilities for Navy's MyNavy HR Transformation.
The NP2 adapts and reengineers business processes to conform to the technical parameters of PeopleSoft 9.2 while integrating with the Direct to Treasury Pay Capability via Pay Modernization (Pay Mod). This combined effort will result in a minimally-customizable vanilla configured Commercial Off the Shelf, cloud hosted, integrated personnel and pay solution that will provide the Navy with an IT system that is modern, highly automated, auditable, and more efficient.
Implementation of NP2 will result in several key benefits:
1. Improved accuracy and auditability of personnel and pay transactions.
2. Treasury Direct Disbursing eliminating Navy reliance on the Defense Joint Military Pay System.
3. Improved permeability of Active and Reserve Components to improve accuracy and eliminate delays in pay processing when a member moves between components.

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4. Increased automation of common personnel and pay transactions
5. Integration of functionality currently spread across 55 different adhoc and outdated HR Business Systems.

SINGLE POINT OF ENTRY (SPOE)
SPOE is an integrated, unified capability that includes MyNavy Portal (MNP), Mobile Applications, Identity, Credential and Access Management (ICAM) functionality, and integration with eCRM, NP2, and ADE solutions. SPOE consolidates the Navy's HR portals, knowledge, and applications into a single and simplified Sailor experience. Through a multi-phased modernization approach, SPOE provides an intuitive self-service capability for Sailors to view and manage their personnel and career information, providing Active and Reserve Sailors with personalized interactive experiences and access to relevant information including learning content, HR applications, and career business processes. SPOE connects eCRM capabilities, and when combined with the portal and ICAM functionality SPOE forms a foundational capability for MyNavy Career Center (MNCC). The Navy's strategy for transformation of its MyNavy HR capabilities relies on SPOE as the user-facing capability, enabling MNCC and linking Sailors to modernized personnel and pay capabilities, the learning stack for Sailor training, and the Authoritative Data Environment (ADE), which holds their personnel and pay information.

SPOE consolidates Navy's Human HR portals, knowledge, and applications into a single, simplified user experience and will include processes and functionality, such as:

1. Integration of capabilities to include: My Navy Portal (MNP), Mobile Applications, CRM solution, and Credential Access Management (ICAM)
2. MNP
A. Serve as the My NavyHR's single point of entry to Sailors HR resource
B. Provide capability to have a low bandwidth version accessible to Sailors operating in a restricted bandwidth environment
C. Provide CAC-free access for Sailors accessing MNP via personal devices such as smart phones, tablets, personal laptops and computers.
3. ICAM
A. Provide authentication and Single Sign-On (SSO) capability for access to the objective My Navy HR capability
4. Mobility Program
A. Maintain the ability to host and manage mobile applications through Apple/iTunes & GooglePlay app stores and host information in MyNavy HR's Navy App Locker website and mobile app. (www.applocker.navy.mil)
B. Provide Mobile application management suite/platform and processes for agile development and sustainment of apps' portfolio

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Learning Stack (LS)	10.576	8.626	12.500	0.000	12.500
Articles:	-	-	-	-	-
FY 2022 Plans: Focus on the deployment and implementation of the cloud-based Learning Management System (LMS), as the immediate need to support Ready Relevant Learning (RRL) modernized content delivery:					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
1. Complete LMS content migration to IL4 environment enabling the shutdown of the legacy LMS system. This will allow student Sailors the ability to capitalize on features provided in the cloud-based LMS (such as self-paced training via mobile devices) that support the premise of RRL where training at the point of need enables training to come to the Sailors (vice classroom setting). 2. Complete LRS xAPI integration with LMS components - this new capability for the Schoolhouse Instructors will utilize dashboards which will capture Sailor training events enabling Instructors to make adjustments during the conduct of the course. 3. Pilot Afloat Disconnected Operations capability (based on assessment conducted in FY21). With the implementation of the cloud-based LMS, this pilot will ensure content can continue to be provided Afloat in support of Sailor training when underway.					
FY 2023 Base Plans: Continued focus on the development, deployment, and integration of Learning Stack capabilities into the RRL 1. Scope final Afloat Disconnected Operations solutions - infrastructure and requirements validation will ensure the usability of the ADO LMS solution 2. Begin development and integration of Afloat/Disconnected Operations Application capability (dependent upon final shipboard and pier-side infrastructure solutions) 3. Assess the integration of analytical tools within the Learning Stack to evaluate Sailor training/learning experiences and effectiveness. This integration w/ data stored in other systems will allow Learning Stack the ability to perform predictive analytics 4. Deploy analytical capabilities within the Learning Stack that evaluate and assess Sailor training/learning experiences and effectiveness. 5. Curriculum Development System (CDS) Initial Operational Capability (IOC) and Full Operational Capability (FOC). Deploying CDS ensures alignment of Curriculum development to the content being modernized (curriculum is the documentation needed to conduct training (Instructor Guides, Course Syllabus, Student Guides). This will allow the delivery of modernized content as it expands from Instructor-led training to self-paced training and virtual simulations.					
FY 2023 OCO Plans: N/A					
FY 2022 to FY 2023 Increase/Decrease Statement:					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
FY23 increase of $3.874M due the production deployment of two (2) Learning Stack module capabilities and the complexity associated with Learning Stack integration.					
Title: Single Point of Entry (SPOE)	17.019	18.300	15.185	0.000	15.185
Articles:	-	-	-	-	-
FY 2022 Plans: 1. Continuing development and integration of portal Career Life Event (CLE) portlet capabilities for Sailors to manage their careers in an intuitive self-service web environment. 2. Perform system consolidations in order to streamline MyNavy HR applications and capabilities. System integrations require new MNP development/modernization code builds to enable MNP to collaborate with them. 3. Deploy MNP Quarterly releases to enhance capabilities for Sailor Self-Service, Personnel and Pay Data, public and private portals, and CLE pages. 4. Continue integration efforts for My Navy HR programs requiring ICAM user authentication to improve authentication and security procedures. Software will require reconfiguration to meet Navy security parameters. FY22 ICAM includes completion of Learning Stack integration. 5. Deploy new updates, functionality and/or capability to 14 mobile applications, which serve as key components of OPNAV N1's Sailor self-service capabilities via mobile delivery. 6. Develop approximately two new mobile applications. Expansion and growth of the My Navy Portal native app will continue to add capabilities as identified by OPNAV N1 for MyHR Sailor capabilities in support of transactional capabilities.					
FY 2023 Base Plans: 1. Continue to develop Single Sign-on capabilities to provide Sailors easier access to MyNavy HR systems such NP2, eCRM, Learning Stack, etc. 2. Develop and deploy Learning Stack capabilities such as Student Information System and Ad Astra which will enhance the Sailor's learning experience. 3. Design, develop and deploy a personalized experience on MyNavy Portal Private Presence providing Sailors with quick access to their HR information much in the format of current commercial online banking websites. 5. Enhance Sailors abilities to conduct HR requirements in capabilities to support Sailors in low-bandwidth and disconnected environments. 6. Contine development and integration of portal Career Life Event (CLE) portlet capabilities for Sailors to manage their careers in an intuitive self-service web environment. 7. Perform system consolidations in order to streamline MyNavy HR applications and capabilities.					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
8. Deploy MNP Quarterly releases to enhance capabilities for Sailor Self-Service, Personnel and Pay Data, public and private portals, and CLE pages. 9. Continue integration efforts for My Navy HR programs requiring ICAM user authentication to improve authentication and security procedures. Software will require reconfiguration to meet Navy security parameters. 10. Deploy new updates, functionality and/or capability to mobile applications, which serve as key components of self-service capabilities via mobile delivery. 11. Develop three new mobile applications; and coordinate with N1 when mobile app strategy gets modified to include expansion of single purpose apps to multi-purpose apps, in support of transactional capabilities and mobile delivery of associated MyNavy HR systems. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 decrease of $3.115M due to Single Point of Entry (SPOE) nearing Full Operational Capability (FOC).					
Title: Enterprise Customer Relationship Management (eCRM)	28.352	28.500	33.699	0.000	33.699
Articles:	-	-	-	-	-
FY 2022 Plans: 1. Begin migration of ARM MVP (National Advertising Leads Tracking System (NALTS)) to integrate the Navy's marketing and advertising mission into the eCRM platform 2. Begin the migration of Navy Accession Security (NAS) System 3. Procure Software-as-a-Service (SaaS) Licenses to provide high-level capabilities to manage and track current Sailors and future Navy Recruits 4. Deploy and complete SalesForce Mobile Maps for digital capabilities for NRC recruiters. 5. Deploy and complete Digital Engagement to provide texting capabilities for NRC recruiters. 6. Deploy Transaction Online Processing System (TOPS) and Personnel and Pay Capabilities (PERSPAY) into MNCC 7. Develop Physical Readiness Information Management System 2 (PRIMS2) capabilities for the Navy Personnel Command ***FY 2023 Base Plans:*** 1. Begin the deployment of the WebSTEAM (Web Standardized Territory Evaluation and Analysis for Management System) capability that enables recruiters access to the Navy's Primary market research tool for decision making on personnel					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
2. Implement the Credentialing, Apprenticeships, and Voluntary Education (CAVE) program into the eCRM system. 3. Begin the implementation of the Navy's Voluntary Education (VOLED) program into the eCRM system 4. Begin the deployment of the Navy Recruiting Commands (NRC) Virtual Recruit Tracker capability into the eCRM system 5. Begin migrating the Personalized Recruiting for Immediate and Delayed Enlistment Modernization (PRIDE Mod) system in the eCRM system 6. Complete the implementation of NRC Case Management into the eCRM system 7. Complete ARM MVP (National Advertising Leads Tracking System (NALTS)) to integrate the Navy's marketing and advertising mission into the eCRM platform 8. Procure Software-as-a-Service (SaaS) Licenses to provide high level capabilities to manage and track current Sailors and future Navy Recruits ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 increase of $5.199M supports growth in user base/licenses and initiation of development activities to build out WebSTEAM, CAVE-VOLED, PRIDE MOD, and NRC Virtual Tracker capabilities in the eCRM environment.					
Title: Navy Personnel and Pay (NP2)	54.896	61.594	63.717	0.000	63.717
Articles:	-	-	-	-	-
FY 2022 Plans: The Navy Personnel and Pay (NP2) Initial Operating Capability (IOC) has been delayed. Consolidating the legacy business systems across the MyNavy HR Portfolio revealed more complexities than expected, driven by external interfaces for 30+ year old legacy systems with undocumented business processes and system alterations. In response, within the execution year, NP2 has refocused on more robust product development, integration, and technical / functional testing activities. This robust approach to end-to-end testing will mitigate risk to payroll accuracy during NP2 Go-Live. Efforts in FY22 concentrate on continuing: - Development and integration sprints for Initial NP2 Release - NP2 payroll validation activities - Interoperability Certification and SFIS Assessment planning with Joint Interoperability Test Command (JITC) - System End-to-End Test Planning for Initial NP2 Release					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
- Operational Assessment planning with Naval Command Operational Test & Evaluation Force (COTF) for Initial NP2 Release - Deployment planning for Initial NP2 Release - Development of NP2 IOC Training materials - Analyze, develop, and test data integrations necessary to support business process re-engineering functions and capabilities required to keep legacy systems operational as incremental NP2 Releases are deployed ***FY 2023 Base Plans:*** Efforts concentrated on achieving a Technical Release in support of the Initial Operating Capability (IOC). Additionally, system requirements will be initiated for Personnel capabilities to include 'Orders / Transfers'; 'Personnel Management'; Organizational Management'; and 'Distribution' Lines of Business: - Complete NP2 payroll validation activities - Continue to analyze, develop, and test data integrations necessary to support business process re-engineering functions and capabilities required to keep legacy systems operational as incremental NP2 Releases are deployed - Support DOTMLP-F functional end user testing - Continue Interoperability Certification and SFIS Assessment planning with Joint Interoperability Test Command (JITC) to obtain Interim Certificate to Operate (ICTO) for Initial NP2 Release - Conduct Operational Assessment with Naval Command Operational Test & Evaluation Force (COTF) for Initial NP2 Release. - Complete System End-to-End Testing for Initial NP2 Release - Continue deployment planning for Initial NP2 Release - Capability drops for NP2 IOC (Hire to Retire functionality) ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 increase of $2.123M supports the DOTMLP-F functional end user testing and the planning and design required to address personnel capabilities.					
Title: Authoritative Data Environment (ADE)	22.259	23.500	20.300	0.000	20.300
Articles:	-	-	-	-	-
FY 2022 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
1. Prepare migration of Fleet Training Management and Planning System (FLTMPS) capability into the ADE environment 2. Develop APIs for Manpower Data and Career/Education Data 3. Promote seven new inbound data sources into Single Source of Truth (SSOT) production environment, thereby making the data available to ADE users. 4. Begin the consolidation of the Navy Personnel Data Base (NPDB) capability to provide queries with the development of APIs 5. Conduct cyber tasking for ADE Commercial Cloud ATO, build commercial cloud data marts 6. Database replication implemented for three major transactional systems 7. Initiate 35 outbound data interfaces 8. Complete report and dashboard functionality in support of Supply Chain tasking 9. Begin migration of the Navy Manpower Program and Budget System (NMPBS) 10. Begin migration of Corporate Enterprise Training Activity Resource System (CETARS) 11. Perform the development, API construction, and data transport efforts that are necessary to start the migration of Commanders Risk Mitigation Dashboard (CRMD) and Fleet Management Requirements Data (FMRD) capabilities into the ADE environment					
FY 2023 Base Plans: 1. Perform the development, API construction, and data transport efforts that are necessary to complete the migration of the following capabilities into the ADE environment: Navy Training Management and Planning System (NTMPS) Navy Manpower Program and Budget System (NMPBS) Navy Reserve Data Warehouse (NRDW) Navy Manpower Requirements System (NMRS) Navy Personnel Database (NPDB) Officer Assignment Information System II (OAIS II) 2. Perform the engineering, archiving, and program activities that are necessary to sunset the NMPBS, NTMPS, NMRS, NPDB, and OAIS II systems 3. Perform the development, API construction, and data transport efforts that are necessary to continue the migration of the Corporate Enterprise Training Activity Resource System (CETARS) 4. Complete migration of Fleet Training Management and Planning System (FLTMPS) capability into the ADE environment					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2905 / *BUPERS IT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
5. Continue development of Minimum Viable Products (MVPs) delivering enhanced modeling tools as well as predictive & prescriptive analytic dashboards that will deliver decision-support capabilities to calculate Total Force Manpower Requirements ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 decrease of $3.200M due to planned achievement of Commander's Risk Mitigation Dashboard and cessation of development activities for that effort.					
Accomplishments/Planned Programs Subtotals	133.102	140.520	145.401	0.000	145.401

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• OMN/3B4K: *Training Support*	8.567	18.892	20.782	-	20.782	23.349	23.999	0.179	0.100	0.000	124.605
• OMN / 4A4M: *Military Manpower and Personnel Mgmt*	131.856	181.254	236.870	-	236.870	245.142	156.706	44.719	42.665	0.000	1,179.529
• OMNR/4A4M: *Military Manpower and Personnel Mgt*	2.645	0.677	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	3.322
• OMN/1C1C: *Combat Communications and Electronic Warfare (CIVPERS)*	6.524	7.038	7.265	-	7.265	7.275	7.282	0.000	0.000	0.000	41.717

Remarks

MyNavy HR Transformation is not just a technology refresh of existing systems, Transformation is a holistic change to how MyNavy HR Services are provided. Simultaneous functional investment (O&M,N) in business processes re-engineering and acquisition investment (RDT&E) in IT is critical to increase quality, auditability, efficiency and overall personnel readiness to meet Navy readiness needs - both current and future.

1. OMN / 3B4K is required to support the sustainment costs associated with delivering a non-CAC Identity and Access Management (IdAM) capability across the MyNavy HR Enterprise that provides authentication, authorization and single sign on for access to the objective MPT&E capability. Additionally, to provide the ability to host and manage mobile applications developed through the Navy App Locker (past, present and future). In addition, continued operations and sustainment for the LS Transformation effort to acquire Software as a Service (SaaS) subscriptions, required interface maintenance with legacy systems; in addition to hosting N1 learning

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

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost

applications within the cloud environment. Lastly, Sustainment of SPOE system functionality to include additional Career Life Events, Mobile Applications, MNP Public Portal, and the credentialed identities of a larger user population which requires additional ICAM licenses

2. OMN / 4A4M This Budget Activity consists of costs required to support both the functional and acquisition requirements (in parallel with development of technology) to holistically transform and deliver an effective modernized IT Solution. These efforts include requirements generation, business process re-engineering, change and risk management. In FY23, MyNavy HR will be required to sustain pay capabilities deployed as part of IOC, increase support / demand at each of the MyNavy Career Centers, while continuing its momentum to build out analytic capabilities.

3. OMN / 1C1C is for Civilian Labor Salaries / costs to support MyNavy HR Transformation

4. OMNR / 4A4M is required to support IT Scaffolding of legacy IT Systems. Scaffolding is "throw-away" development required for transformation and the execution of the 55:1 Shutdown Plan. Due to the change in plan and moving towards a functional (vs. System) shutdown approach drives the need for IT Scaffolding as portions of IT system capabilities are retired.

D. Acquisition Strategy

Each MyNavy HR pillar follows a progression of piloting activities to development of a Minimal Viable Product (MVP). Once an MVP is developed and is ready to be hardened to a production capability, the pillar employs the MyNavy HR Transformation Portfolio Coordinator and Production contract to ingest the MVP into an integrated technical baseline.

AUTHORITATIVE DATA ENVIRONMENT
The required services will be procured through multiple Cost Plus Fixed Fee (CPFF) task orders awarded on a competitive, multiple award, small business Indefinite Delivery / Indefinite Quantity (ID/IQ) contract for MyNavy HR PMW 240 enterprise services, and also on a competitive, single award, large business Indefinite Delivery / Indefinite Quantity (ID/IQ) contract for tasking related to personnel and pay modernization.

ENTERPRISE CUSTOMER RELATIONSHIP MANAGEMENT (eCRM)
The migration concluded in February 2021 and will transition to a small business 8a in spring of 2022 for the duration of the program's research, development, test, evaluation, and sustainment.

LEARNING STACK (LS)
Use existing Government Wide Acquisition Contracts or competitive contract for any new product sourcing, use existing Bi-Service PeopleSoft licenses, Indefinite Delivery/Indefinite Quantity contract vehicles within PMW 240 for additional design and integration services. Leverage the Interagency Agreement for an Assisted Acquisition with the Office of Personnel Management's USA Learning program.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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NAVY PERSONNEL AND PAY SYSTEM (NP2)
NP2 will incrementally implement Navy's personnel and pay modernization strategy using a variety of IDIQ contract task orders & multiple Technical Direction Letters issued under the MyNavy HR Transformation Portfolio Coordinator & Production contract. These task orders & Technical Direction Letters will use commercial off the shelf (COTS) software (PeopleSoft Global Payroll and PeopleSoft General Ledger) to extend the Navy Personnel and Pay (NP2) functionality based on PeopleSoft Human Capital Management

SINGLE POINT OF ENTRY (SPOE)
The required services will be procured through a competitive sole source small business Indefinite Delivery / Indefinite Quantity (ID/IQ) Alaska native contract.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Learning Stack (LS)	C/CPFF	OPM : Pensacola, FL	12.800	11.000	May 2021	2.500	May 2022	4.000	May 2023	-		4.000	Continuing	Continuing	Continuing
MNP/SPOE	C/CPFF	Katmai : Arlington, VA	61.188	17.700	Dec 2020	13.000	Dec 2021	11.000	Dec 2022	-		11.000	Continuing	Continuing	Continuing
AOA Design, Development, Test & Deployment	C/CPFF	GDIT : New Orleans, LA	1.792	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
NP2 Rapid Prototype Pilot	C/CPFF	GDIT/Na Ali : Washington, DC	37.872	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
RMI SPM Development	C/CPFF	Kapsuun : Arlington, VA	17.239	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
ADE + Data Analytics	C/CPFF	GDIT : Washington, D.C.	26.256	8.000	May 2021	8.500	May 2022	11.500	May 2023	-		11.500	Continuing	Continuing	Continuing
Transformation Portfolio Coordinator and Production	C/IDIQ	CACI : Chantilly, VA	24.314	39.832	Nov 2020	62.520	Nov 2021	62.393	Nov 2022	-		62.393	Continuing	Continuing	Continuing
eCRM Pilot	C/IDDQ	Ideamatics : Mclean, VA	17.487	17.487	Feb 2021	7.615	Feb 2022	7.620	Feb 2023	-		7.620	Continuing	Continuing	Continuing
NP2 Transformation	C/IDIQ	CACI / Na Ali : Chantilly, VA	41.711	26.700	Oct 2020	28.000	Oct 2021	28.500	Oct 2022	-		28.500	Continuing	Continuing	Continuing
		Subtotal	240.659	120.719		122.135		125.013		-		125.013	Continuing	Continuing	N/A

Remarks

The Transformation Portfolio Coordinator & Production (TPC&P) will deliver a family of systems in support of MyNavy HR Transformation. As MyNavy HR Solutions Minimal Viable Products (MVPs) are developed and capabilities fielded, development work will transition from pillar-based pilot activities to the TPC&P effort. The TPC&P will integrate those capabilities to coordinate a seamless, interoperable MyNavy HR IT Solution. In FY23, staffing for the TPC&P continues as NP2, ADE, SPOE, eCRM capabilities are fielded and embedded within the integrated solution.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
eCRM SAAS	C/IDIQ	Carahsoft : San Francisco, CA	9.880	12.000	Jan 2021	18.000	Jan 2022	20.000	Jan 2023	-		20.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NSIPS Bi-Service License	C/CPFF	Oracle : Redwood City, CA	20.700	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	30.580	12.000		18.000		20.000		-		20.000	Continuing	Continuing	N/A

Remarks

$2M eCRM support SAAS increase attributed to vendor license cost increase.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Testing and Evaluation NP2	C/FFP	COMOPTEVFOR : Arlington, VA	0.000	0.383	Dec 2020	0.385	Dec 2021	0.388	Dec 2022	-		0.388	Continuing	Continuing	Continuing
		Subtotal	0.000	0.383		0.385		0.388		-		0.388	Continuing	Continuing	N/A

Remarks

With the exception of NP2, programs are all either abbreviated acquisition programs or non-designated projects and do not require Independent Operational Test Evaluation (IOTE). Testing is performed in accordance with approved test plans by the business owners.

NP2: Testing is for technical and analytical support to 'Commander, Operational Test and Evaluation Force' (COMOPTEVFOR) in the definition, conduct and analysis of structured Initial Operational Test and Evaluation (IOT&E) of NP2

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	271.239	133.102		140.520		145.401		-		145.401	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
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MyNAVY HR Transformation IT Services Executive View

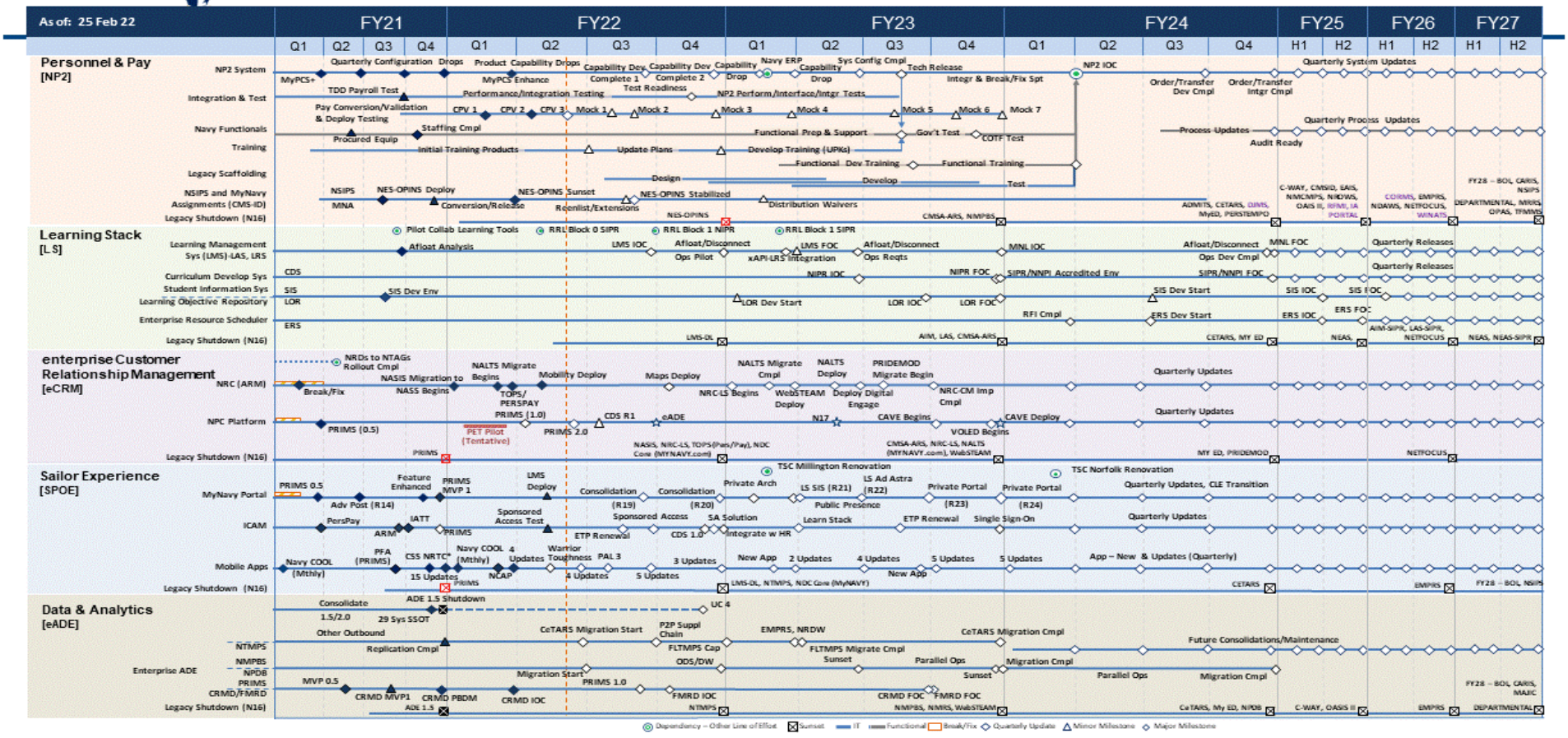

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
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Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2905.L39				
Learning Stack: Content Delivery System (CDS) Initial Deployment	2	2023	2	2023
Learning Stack: Content Delivery System (CDS) Full Deployment	4	2023	4	2023
Learning Stack: CDS IL6 Accredited IL6 Cloud hosting	4	2023	4	2023
Learning Stack: MyNavy HR Transformation (LS) 55 to 1 System Shutdown	1	2021	4	2026
Learning Stack: CDS IL6 Deployment	4	2024	4	2024
Learning Stack: Student Information System (SIS) Initial Deployment	2	2025	2	2025
Learning Stack: Enterprise Resource Scheduler initial Deployment	2	2025	2	2025
Learning Stack: Enterprise Resource Scheduler Full Deployment	4	2025	4	2025
Learning Stack: Student Information System (SIS) Quarterly Releases	2	2026	4	2027
Learning Stack: Student Information System (SIS) Full Deployment	1	2026	1	2026
Learning Stack: SIS Quarterly Updates	3	2023	4	2026
Learning Stack: Learning Object Repository (LOR) Development	1	2023	1	2023
Learning Stack: Learning Object Repository (LOR) IL4 Limited Deployment	3	2023	3	2023
Learning Stack: Learning Object Repository (LOR) IL4 Full Deployment	4	2023	4	2023
Learning Stack: Initiate xAPI Dictionary Integration	3	2021	1	2023
Learning Stack: LMS / LAS / LRS Afloat Analysis	3	2022	3	2022
Learning Stack: LMS / LAS / LRS Quarterly System Update	1	2023	4	2027
Learning Stack: Learning Management System (LMS) w/ assessment initial capability	2	2022	2	2022
Learning Stack: Learning Management System (LMS) w/ assessment full capability	3	2022	3	2022
Learning Stack: Complete Disconnected Operations Pilot	1	2023	4	2024
Learning Stack: On-Demand Enlisted Advancement Exam Pilot	2	2024	1	2025

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Learning Stack: On-Demand Enlisted Advancement Exam Deployment	2	2025	4	2025
Learning Stack: Reserve Officer Training Corps and Naval Junior Officer Reserve Training Corps Pilot	1	2025	4	2026
Learning Stack: ROTC and NJROTC Candidate Mgmt Deployment	4	2026	1	2027
Learning Stack: Navy College Mgmt Information System MVP Creation	1	2027	3	2027
Learning Stack: Navy College Mgmt Information System MVP Integration	4	2027	4	2027
NAVY PERSONNEL AND PAY (NP2)				
NP2: IOC Debts & Collections, Vendor Interfaces, Performance and Career Path MVPs	1	2021	1	2021
NP2: IOC PCS Travel Expenses, Reserve Activities, Separations and Job History Conversion MVPs	2	2021	2	2021
NP2: IOC Finance, Payroll Reporting, Enroute Orders and Miscellaneous Conversion MVPs	3	2021	3	2021
Personnel Capability Drop	1	2022	1	2022
NP2 Capability Area Development Complete 1	3	2022	3	2022
NP2 Capability Area Development Complete 2	4	2022	4	2022
NP2 Capability Drop 1	1	2023	1	2023
NP2 Capability Drop 2	2	2023	2	2023
NP2 Capability Drop 3	3	2023	3	2023
System Configuration Complete	1	2021	2	2023
NP2 Technical Release	3	2023	3	2023
NP2: IOC Release and Deploy	1	2024	2	2024
NP2: Continuous Monitoring - Quarterly Systems Engineering Technical Reviews	3	2022	4	2025
NP2: Integration and Testing	2	2021	2	2021
NP2: Integration and Testing: TDD / GEX I/F Test	3	2021	3	2021
NP2: Integration and Testing: IOC Testing	3	2021	3	2023

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Np2 Training Materials	3	2023	3	2023
Core Pay Validation 1	1	2022	1	2022
Core Pay Validation 2	2	2022	2	2022
Core Pay Validation 3	2	2022	2	2022
NP2 Mock Pay Validation 1	3	2022	3	2022
Mock Pay Validation 2	3	2022	3	2022
Mock Pay Validation 3	4	2022	4	2022
Mock Pay Validation 4	1	2023	1	2023
Mock Pay Validation 5	2	2023	2	2023
Mock Pay Validation 6	3	2023	3	2023
Mock Pay Validation 7	4	2023	4	2023
NP2: Deploy NES / OPINS	2	2021	2	2021
NP2: MyNavy HR Transformation 55 to 1 System Shutdown	3	2022	4	2026
NP2: Order Writing/Transfers Design/Development	1	2024	3	2024
NP2: Order Writing/Transfers Integration and Testing	4	2024	4	2024
NP2: Advancements and Promotions Design/Development	1	2025	3	2025
NP2: Advancements and Promotions Integration and Testing	4	2025	4	2025
NP2: Advancements and Promotions Deployment	4	2026	4	2026
NP2: Manpower Design/Development	4	2027	4	2027
NP2: Manpower Integration and Testing	1	2024	3	2024
NP2: Manpower Deployment	3	2024	4	2024
Authoritative Data Environment (ADE)				
ADE 2.0 IOC (API Enterprise)	2	2022	2	2022
ADE 2.0 NTMPS Capabilitity Drop	4	2022	4	2022
ADE 2.0 NPDB Migration	3	2022	3	2022

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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
ADE 2.0 CETARS Migration	3	2022	4	2023
Commanders Risk Mitigation Dashboard Initial Deployment	2	2022	2	2022
Schedule DetailCommanders Risk Mitigation Dashboard Full Deployment	3	2023	3	2023
Fleet Manpower Requirements Dashboard MVP	4	2022	4	2022
Fleet Manpower Requirements Dashboard Full Deployment	4	2023	4	2023
ADE 2.0 Capability Drops NMPBS,NMRS,NPDB,OAIS II, MyEd, CETARS, EMPRS, NTMPS, C-WAY, WEBSTEAM	2	2021	3	2023
Sunset NTMPS	4	2022	4	2022
ADE 2.0 Capability Drops BOL,CARIS, Departmental, MAJIC	1	2024	3	2025
ADE/BBD Capability Initiated	1	2021	1	2021
Predictive Dashboard	3	2022	4	2025
Enterprise Customer Relationship Management (eCRM)				
ARM Quarterly Updates	1	2021	4	2026
MyNavy HR Transformation (eCRM) 55 to 1 System Shutdown	1	2021	4	2026
Integrate MNCC/eCRM TOPS	1	2022	1	2022
Integrate MNCC/eCRM CAVE-VOLED	3	2023	3	2023
Integrate MNCC/eCRM N-17 H-EO	4	2021	4	2021
Migrate MNCC/eCRM NASIS	1	2022	1	2023
Develop Maps/Digital Engagement Capability	4	2022	4	2022
Integrate MNCC/eCRM Physical Readiness Information Management System Capabiity	2	2022	2	2022
Begin Development of NRC Virtual Recruiter Tracker	3	2023	3	2023
Complete NRC Case Management Implementation	3	2023	3	2023
Digital Engagement	2	2023	2	2023
National Advertising Leads Tracking System Integration	1	2023	1	2023
National Advertising Leads Tracking System Deploy	2	2023	2	2023

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
NRC Legal Services Integration	3	2023	3	2023
Single Point of Entry (SPOE)				
MNCC FOC	4	2022	4	2022
MNCC Updates	1	2021	4	2025
MNP Quarterly Updates	1	2021	4	2025
Mobile Apps Deployment and Updates	1	2021	1	2025
ICAM Deployment and Updates	1	2021	1	2025
Sunset NMPDS	4	2023	4	2023
Sunset NTMPS	4	2024	4	2024
Sunset NSIPS	4	2025	4	2025
Legacy Website / Portal Consolidation	1	2021	2	2023
Achieve MNP/ICAM Single Sign-On Sponsored Access	4	2022	4	2022
MNP FOC	4	2024	4	2024

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605013N / *Information Technology Development*	Project (Number/Name) 2953 / *Model Based Product Support (MBPS)*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
2953: *Model Based Product Support (MBPS)*	0.000	0.000	0.000	10.817	-	10.817	0.354	0.333	0.318	0.290	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

MODEL BASED PRODUCT SUPPORT (MBPS) - Formerly known as Product Lifecycle Management (PLM):
Logistics Information Technology (LOG-IT) modernization will provide the capability of performing integrated, real-time, data driven operational and shore logistics. LOG-IT systems must be able to operate in disconnected environments with modern, cyber-secure and auditable systems that compress the Kill Chain. The MBPS program is major authoritative data source for LOG-IT. The MBPS program modernizes ship / submarine readiness modeling, technical data management, and configuration management IT systems to enable advanced digital twin and readiness analytics capabilities. MBPS provides capability to migrate legacy LOG IT applications into an integrated Navy Product Life-Cycle Management (N-PLM) environment to include both maritime and aviation support. It will be hosted in a Government-approved commercial cloud environment and used on a 24/7 basis by over 200,000 personnel assigned to 286 ships/submarines, all aircraft and over 700 shore-based activities, impacting a yearly $6.5B investment in product sustainment.

FY23 resources are required to complete MBPS capability to execute the replacement of legacy LOG IT systems into N-PLM to support Planned Maintenance, Modernization Planning, and Operational Availability reporting. This funding will provide for critical performance of engineering development, design testing, data integration, training development and cybersecurity requirements and award capability development via Other Transaction Authority or via PTC development contract to complete MBPS MVPs and align efforts with NAVAIR under PEO MLB to transition to a single Navy PLM beginning in FY23. MBPS will enable global visibility across all weapon systems, all echelons and all supported units with real-time logistics and readiness data in a single picture to compress the logistics kill chain.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Model Based Product Support (MBPS)	0.000	0.000	10.817	0.000	10.817
Articles:	-	-	-	-	-
FY 2022 Plans: FY22 OMN funding provides for the deployment of the fourth minimum viable product (MVP) for MBPS to include development and delivery of Navy Data Acquisition Requirements Tool (NDART) capability, providing common data standards, requirements and acquisition approaches to procure technical and product data. Other FY 2022 activities include continued management of Configuration Management data by Weapon System and begin the ingestion of data from DLA. Achieve IOC with integration between MBPS and Naval Maintenance, Repair and Overhaul (N-MRO). Begin integration of Logistics Product Data (LPD) within MBPS.					
FY 2023 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2953 / *Model Based Product Support (MBPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
FY23 RDTEN funding is required to deploy the fifth MVP for MBPS to include Integrated Training delivery, unclassified naval nuclear propulsion information (U-NNPI) hosting environment (impact level 5 ATO achieved), provide provisioning capability and sunset of the Interactive Computer Aided Provisioning System (ICAPS). Begin development of the sixth MVP for MBPS to release the Navy Common Readiness Modeling capability, this provides the integrated solution for predictive analytics, reporting, and optimization of weapon system readiness and O&S cost throughout the life cycle. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 $10.817M increase enables the Model Based Product Support (MBPS) capability deployments of Minimum Viable Product (MVP) 5 and 6 to execute the replacement sunset of legacy LOG IT systems into N-PLM to support Planned Maintenance, Modernization Planning, and Operational Availability reporting.					
Accomplishments/Planned Programs Subtotals	0.000	0.000	10.817	0.000	10.817

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Modernize existing Command Technical Data (CTD), Configuration Management, Readiness and Provisioning / Outfitting logistics information technology systems. The MBPS project will follow a rapid delivery acquisition approach (incremental development and fielding of capabilities) to deliver an integrated and production ready solution.

To date the MBPS Program has released three (3) contracts to support development:

1) Other Transaction Authority (OTA) contract for incremental development to include initial "pick and click" type training

2) Sole source contract awarded to PTC for Software as a Service (SaaS)

3) Phase III SBIR Task Order 2 to Frontier Technology Inc to deliver foundational training execution

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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A FAR based contract will be awarded in the future to support sustainment. Following Minimum Viable Product (MVP) completion, MBPS will be deployed across the Navy enterprise and Full Operational Capability (FOC) established. Following full deployment, MBPS will enter the sustainment period of its lifecycle.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2953 / *Model Based Product Support (MBPS)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Development	C/FFP	United States Army Contracting Command : Orlando, FL	0.000	0.000		0.000		4.000	Oct 2022	-		4.000	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		4.000		-		4.000	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software & Data Integration	C/FFP	Parametric Technology Corporation : Boston, MA	0.000	0.000		0.000		5.500	Jan 2023	-		5.500	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		5.500		-		5.500	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	C/FFP	United States Army Contracting Command : Orlando, FL	0.000	0.000		0.000		1.317	Oct 2022	-		1.317	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		1.317		-		1.317	Continuing	Continuing	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		0.000		10.817		-		10.817	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2953 / *Model Based Product Support (MBPS)*

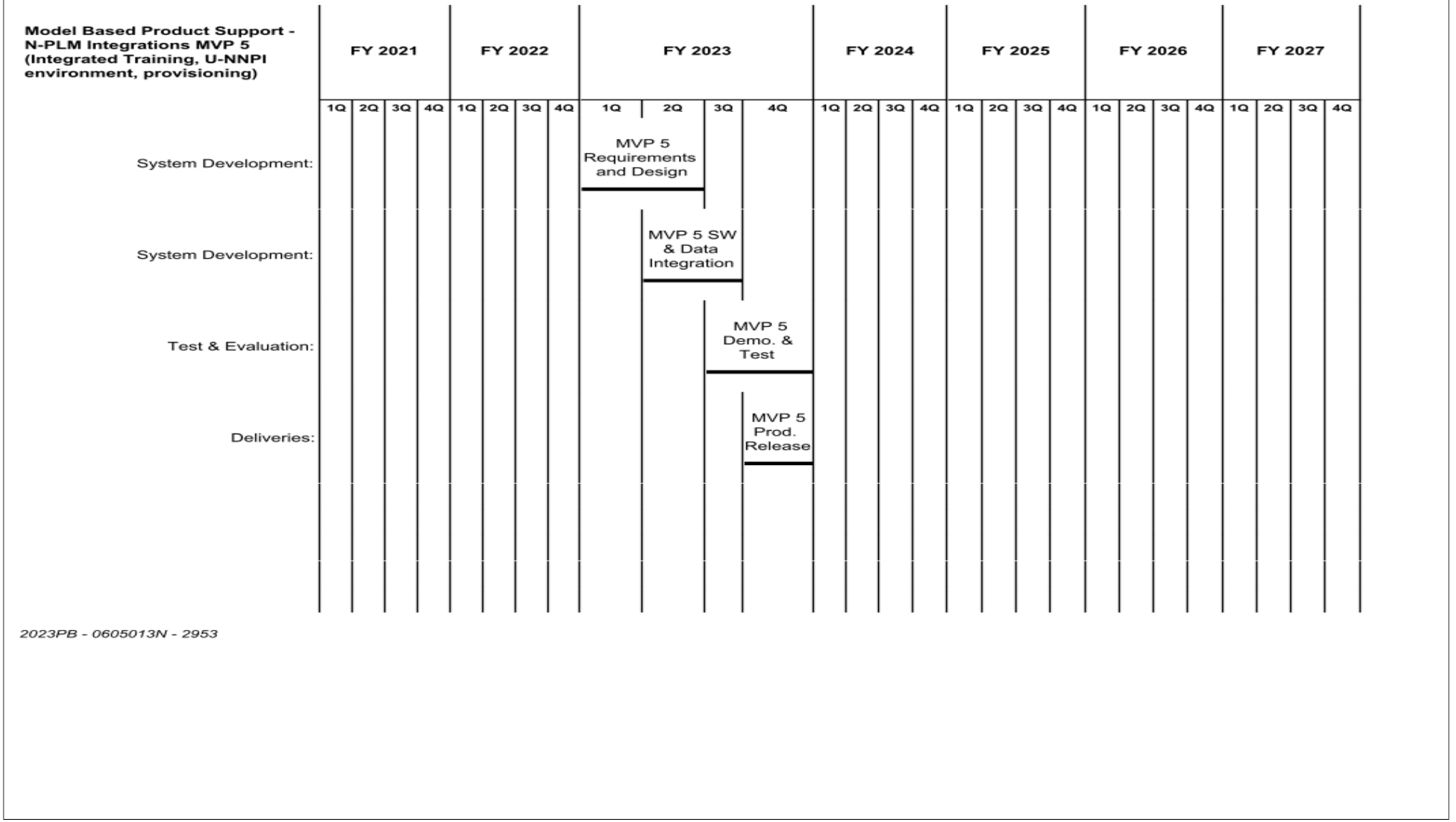

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2953 / *Model Based Product Support (MBPS)*

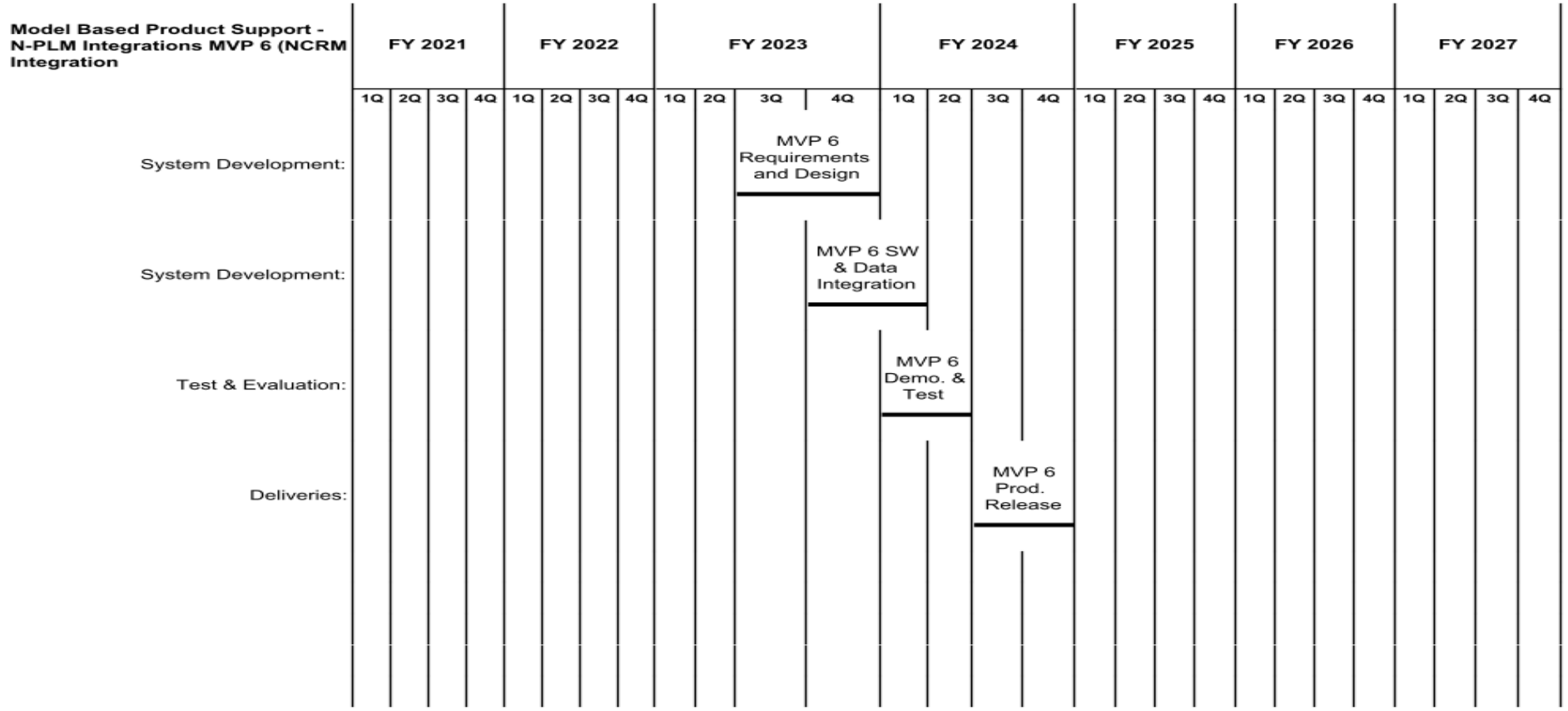

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2953 / *Model Based Product Support (MBPS)*

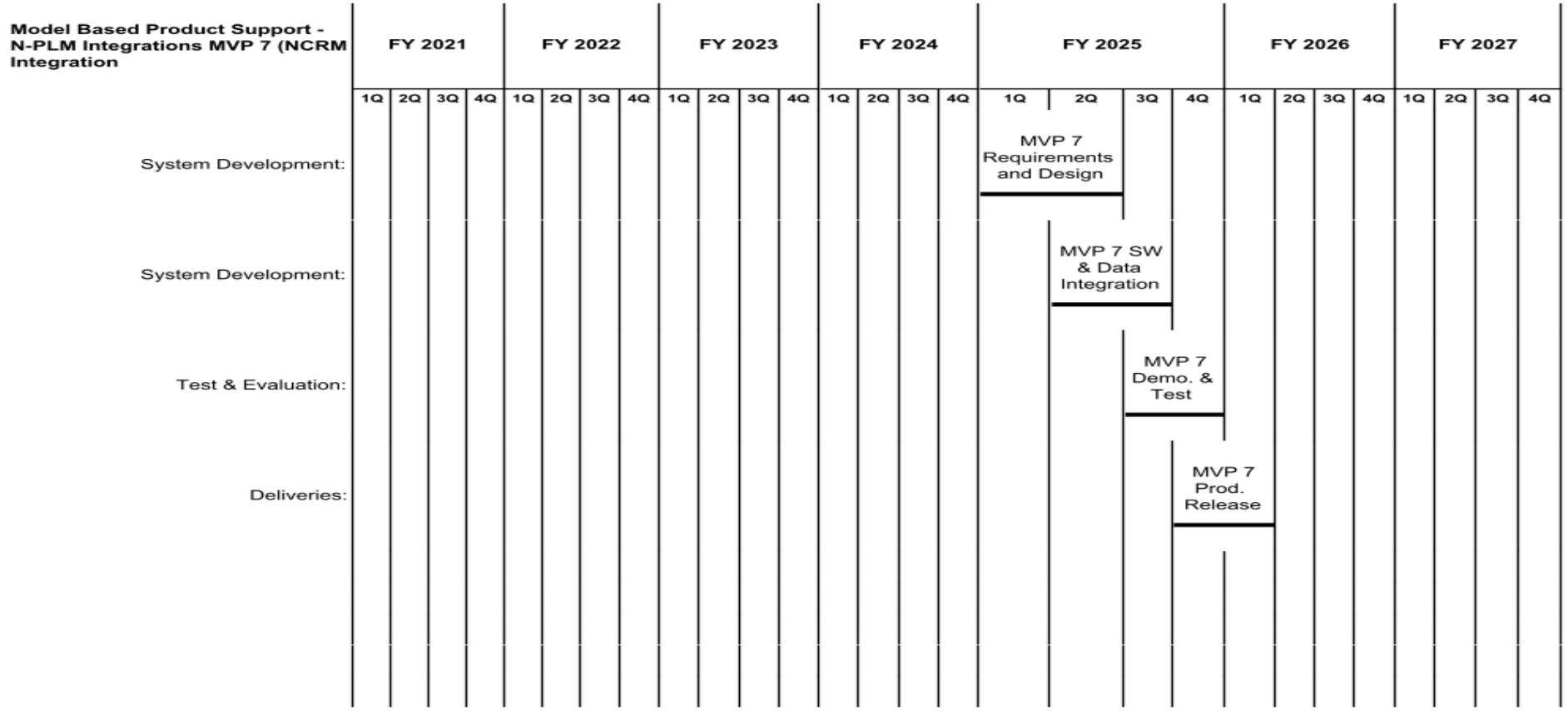

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2953 / *Model Based Product Support (MBPS)*

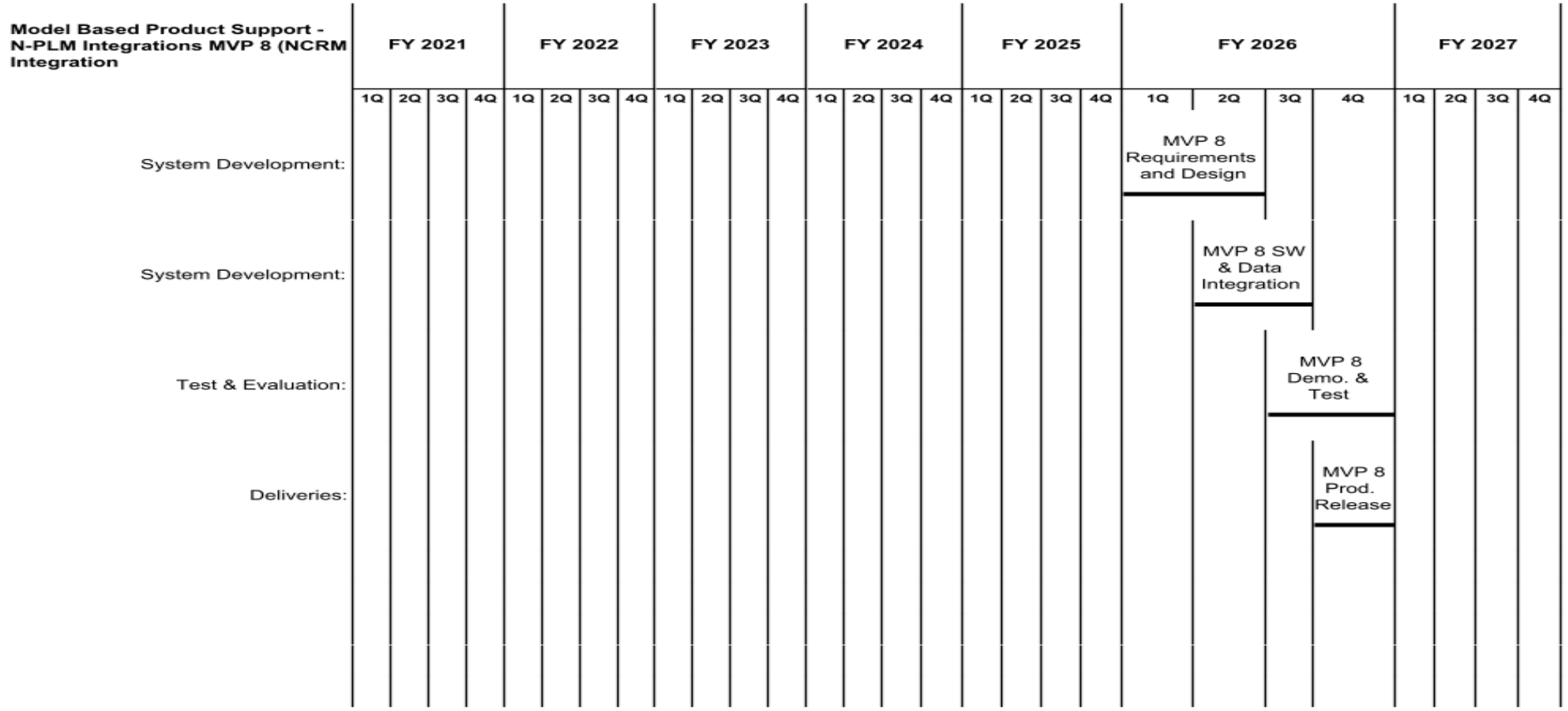

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2953 / *Model Based Product Support (MBPS)*

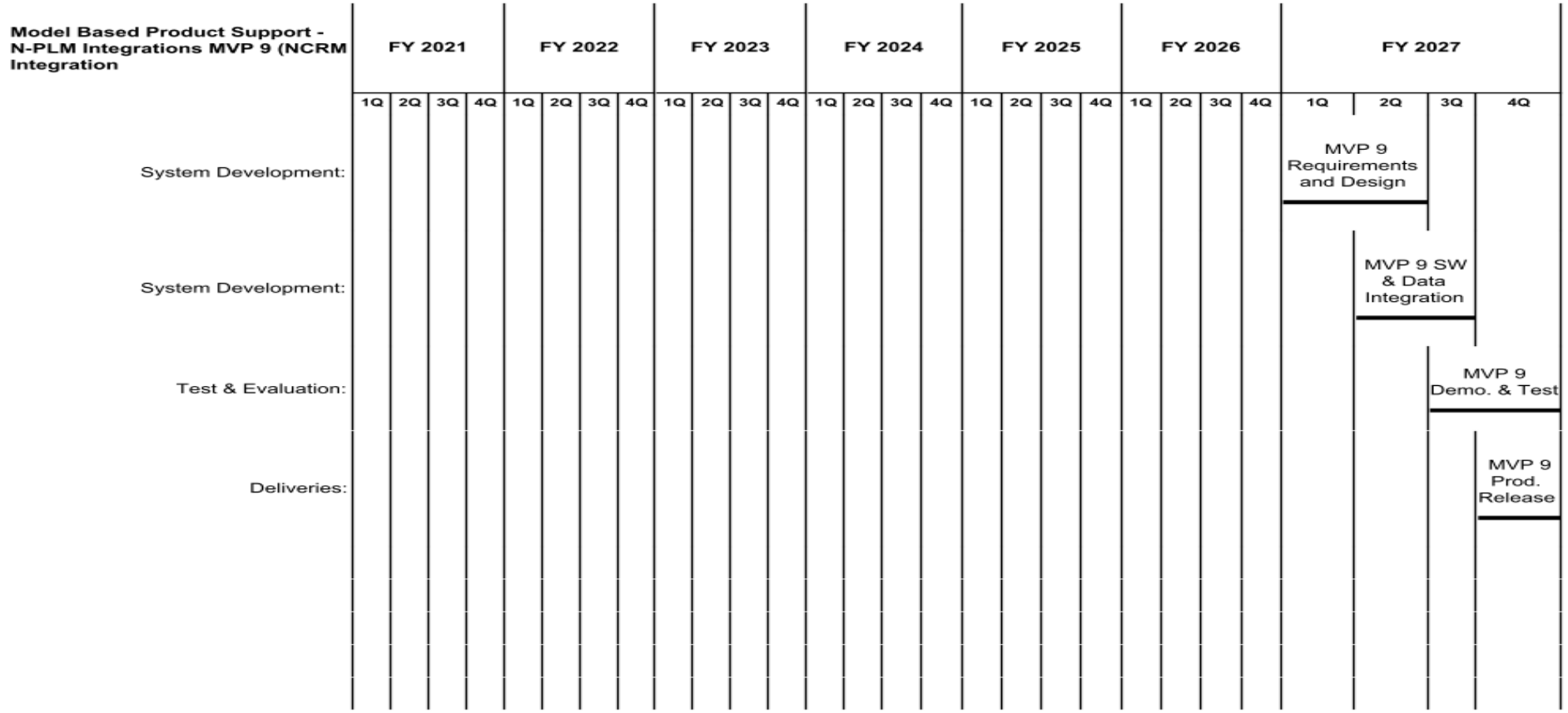

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2953 / *Model Based Product Support (MBPS)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Model Based Product Support - N-PLM Integrations MVP 5 (Integrated Training, U-NNPI environment, provisioning)				
System Development:: MVP 5 Requirements and Design	1	2023	2	2023
System Development:: Software and Data Integrations	2	2023	3	2023
Test & Evaluation:: MVP 5 Demonstration and Testing	3	2023	4	2023
Deliveries:: MVP 5 Production Release	4	2023	4	2023
Model Based Product Support - N-PLM Integrations MVP 6 (NCRM Integration				
System Development:: MVP 6 Requirements and Design	3	2023	4	2023
System Development:: Software and Data Integrations	4	2023	1	2024
Test & Evaluation:: MVP 6 Demonstration and Testing	1	2024	2	2024
Deliveries:: MVP 6 Production Release	3	2024	4	2024
Model Based Product Support - N-PLM Integrations MVP 7 (NCRM Integration				
System Development:: MVP 7 Requirements and Design	1	2025	2	2025
System Development:: Software and Data Integrations	2	2025	3	2025
Test & Evaluation:: MVP 7 Demonstration and Testing	3	2025	4	2025
Deliveries:: MVP 7 Production Release	4	2025	1	2026
Model Based Product Support - N-PLM Integrations MVP 8 (NCRM Integration				
System Development:: MVP 8 Requirements and Design	1	2026	2	2026
System Development:: Software and Data Integrations	2	2026	3	2026
Test & Evaluation:: MVP 8 Demonstration and Testing	3	2026	4	2026
Deliveries:: MVP 8 Production Release	4	2026	4	2026
Model Based Product Support - N-PLM Integrations MVP 9 (NCRM Integration				

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 2953 / *Model Based Product Support (MBPS)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
System Development:: MVP 8 Requirements and Design	1	2027	2	2027
System Development:: Software and Data Integrations	2	2027	3	2027
Test & Evaluation:: MVP 9 Demonstration and Testing	3	2027	4	2027
Deliveries:: MVP 9 Production Release	4	2027	4	2027

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy											Date: April 2022	
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0605013N / *Information Technology Development*				Project (Number/Name) 3167 / *Joint Technical Data Integration (JTDI)*			
COST ($ in Millions)	**Prior Years**	**FY 2021**	**FY 2022**	**FY 2023 Base**	**FY 2023 OCO**	**FY 2023 Total**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**Cost To Complete**	**Total Cost**
3167: *Joint Technical Data Integration (JTDI)*	46.465	7.380	5.952	6.437	-	6.437	8.105	8.078	7.981	8.120	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Joint Technical Data Integration (JTDI) Program - Funding provides an enterprise common data transport solution to support the future state for Logistics IT and Readiness: Naval Product Lifecycle Management (N-PLM), Naval Maintenance, Repair, and Overhaul (N-MRO), Naval Supply Chain Management (N-SCM), and Integrated Data Environment (IDE). In addition to transporting authoritative technical data to maintainers in the ashore, afloat, and expeditionary environments, JTDI also automates the movement of CBM+ data generated by smart weapon systems deployed around the globe, consolidates and makes platform sensor data available for automated ingest into the Standard Data Repository, which provides modern, highly integrated analytic capabilities to enable condition-based maintenance processes. JTDI is a digital technical data access, delivery and local Organizational & Intermediate level library management toolset that improves accuracy and timeliness of weapon system repair manuals and other technical data delivery, minimizes the Fleet's library management burden, and reduces maintenance work hours with a Return on Investment of 2.5:1. Funding supports the evaluation, testing and integration to develop a JTDI Government Off-The-Shelf (GOTS) solution for installation on Carrier and Amphibious Assault class ships, the Consolidated Afloat Networks and Enterprise Services Network (CANES), and at other globally deployed Navy/Marine Corps activities. JTDI is aligned with NAVAIR LOG IT digital transformation objectives and Navy Digital Roadmap.

Marine Aviation Logistics Enterprise Information Technology (MAL-EIT) - MAL-EIT funding supports the evaluation, development, testing and integration of software and hardware solutions across all US Marine Corps Aviation activities to be used in the planning and execution of geographically distributed, expeditionary Aviation Logistics (AVLOG) chains in support of deployed USMC Air Combat Element operations. The MAL-EIT Program is one of four programs contained within the Marine Aviation Logistics Support Program (MALSP) modernization program known as MALSP II. Legacy MALSP is nearly 25 years old and grossly inadequate in IT capability to meet the informational, planning, and C2 needs of a dynamic, geographically distributed nodal AVLOG system. MAL-EIT is a Defense Business System Abbreviated Acquisition Program that will develop and deliver the required IT capability necessary to eliminate the IT related gaps existing in the legacy MALSP. MAL-EIT is a family of IT solutions to be developed and delivered in three increments. These increments are depicted below:

Expeditionary Pack Up Kit (EPUK): Provides Expeditionary Supply Operations to include business administration, inventory, and customer service operations.

Next Generation Buffer Management System: Provides buffer management in a time domain, and buffer sizing analysis.

Logistics Planning Tool and Optimizer Tool: Provides capability to develop tailored Remote Expeditionary Support Packages, consumption forecasts, and Nodal Logistics Lay down designs.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3167 / *Joint Technical Data Integration (JTDI)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Joint Technical Data Integration (JTDI)	4.790	5.381	5.594	0.000	5.594
Articles:	-	-	-	-	-
FY 2022 Plans: Continue to conduct development, modernization, obsolescence management, and cybersecurity mandated activities associated with a major release of fully deployed COTS-intensive JTDI system Version 2.0.7.5. Continue to conduct COTS requirements definition, evaluation, integration, and testing of annual baseline releases. Continue to perform development and testing to modernize top tier file management to reduce resource intensive tasks; continue to extend cloud capabilities; continue to automate configuration management modules; continue initial, limited capability to push analytics to the deployed/distributed edge; continue integration of modules to enhance cyber security and enable tighter configuration control over globally deployed IT assets.					
FY 2023 Base Plans: Conduct development, modernization, obsolescence management, and cybersecurity mandated activities associated with a major release of fully deployed COTS-intensive JTDI system Version 2.0.8.0. Conduct requirements definition, COTS evaluation, integration, and testing of annual baseline releases. Perform development and testing to continue enhancement of capability to maintain configuration of globally deployed JDMS application; enable enhanced/automated troubleshooting and problem recognition at deployed sites; decompose JTDI system components into containerized micro-services to optimize developmental efforts by reducing program complexity; and enhance distributed analytics capabilities.					
FY 2023 OCO Plans: N/A					
FY 2022 to FY 2023 Increase/Decrease Statement: FY23 increase of $0.213M due to higher costs for software engineering, integration, testing, and cybersecurity activities associated with development/modernization of Joint Technical Data Integration (JTDI) system release 2.0.8.0.					
Title: Marine Aviation Logistics Enterprise Information Technology (MAL-EIT)	2.590	0.571	0.843	0.000	0.843
Articles:	-	-	-	-	-
FY 2022 Plans: Refinements to MAL-EIT and NOBLE communication link and required updates to MAL-EIT 3.3 software.					
FY 2023 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3167 / *Joint Technical Data Integration (JTDI)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Continued refinement and updates to the Expeditionary Pack-up Kit (EPUK) and Logistics Planning Tool (LPT). Establishment of the Next Generation Buffer Management System (NGBMS) web application. Synchronization and communication links established between LPT and NGBMS applications. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 increase of $0.272M due to the refinement and upgrades to Expeditionary Pack-up Kit (EPUK) and Logistics Planning Tool (LPT) and the establishment of the Next Generation Buffer Management System (NGBMS) web application.					
Accomplishments/Planned Programs Subtotals	7.380	5.952	6.437	0.000	6.437

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• OPN/4268/JTDI: *Joint Technical Data Integration (JTDI) Other Aviation Support Equipment*	2.392	2.355	2.650	-	2.650	2.687	2.750	2.857	2.908	Continuing	Continuing

Remarks

JTDI funds are only a portion of OPN Line Item 4268.

D. Acquisition Strategy

Joint Technical Data Integration (JTDI) Program - 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. The evolutionary development approach will be used to execute requirements. Contracting for the prime integrator will be via competitively awarded indefinite delivery - indefinite quantity contracts.

Marine Aviation Logistics Enterprise Information Technology (MAL-EIT) Program - The management approach includes the Logistics IT Portfolio Management Office residing within NAVAIR as part of Program Executive Office for Aviation Common Systems and Commercial Services and Milestone Decision Authority delegated to NAVAIR Sustainment Group. The evolutionary development approach will be used to execute requirements. Contracting for the prime integrator will be via competitively awarded cost plus fixed fee contracts.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3167 / *Joint Technical Data Integration (JTDI)*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development/ Hardware Integration for Marine Aviation Logistics Enterprise Information Technology (MAL-EIT)	C/CPFF	KBR : Patuxent River, MD	7.663	0.628	Oct 2020	0.200	Oct 2021	0.363	Oct 2022	-		0.363	Continuing	Continuing	Continuing
Prior year support no longer funded in the FYDP	Various	Various : Various	23.079	0.000		0.000		0.000		-		0.000	0.000	23.079	-
Software Development for JTDI	C/FFP	KBR : Patuxent River, MD	2.738	2.383	May 2021	3.031	May 2022	0.000		-		0.000	Continuing	Continuing	Continuing
Software Development/ Hardware Integration for Marine Aviation Logistics Enterprise Information Technology (MAL-EIT)	C/FFP	ASI : Patuxent River, MD	0.559	1.096	Oct 2020	0.150	Oct 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Software Development for JTDI	C/T&M	GSA/KBR : Patuxent River, MD	0.000	0.000		0.000		3.224	May 2023	-		3.224	0.000	3.224	-
		Subtotal	34.039	4.107		3.381		3.587		-		3.587	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation for MAL-EIT	C/CPFF	KBR : Patuxent River, MD	1.291	0.474	Jan 2021	0.150	Oct 2021	0.252	Oct 2022	-		0.252	Continuing	Continuing	Continuing
Prior year Test & Eval no longer funded in the FYDP	Various	Various : Various	3.080	0.000		0.000		0.000		-		0.000	0.000	3.080	-
Developmental Test & Evaluation JTDI	C/FFP	KBR : Patuxent River, MD	1.390	1.613	May 2022	1.789	May 2022	0.000		-		0.000	Continuing	Continuing	Continuing
Need Item TextDevelopmental Test & Evaluation JTDI	C/T&M	GSA/KBR : Patuxent River, MD	0.000	0.000		0.000		1.824	May 2023	-		1.824	0.000	1.824	-
		Subtotal	5.761	2.087		1.939		2.076		-		2.076	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3167 / *Joint Technical Data Integration (JTDI)*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support MAL-EIT	WR	NAWCAD : Patuxent River, MD	0.426	0.324	Oct 2020	0.000		0.022	Oct 2022	-		0.022	Continuing	Continuing	Continuing
Program Management Support MAL-EIT	C/CPFF	KBR : Patuxent River, MD	1.579	0.068	Jan 2021	0.100	Oct 2021	0.206	Oct 2022	-		0.206	Continuing	Continuing	Continuing
Prior year Mgmt Svcs Cost no longer funded in the FYDP	Various	Various : Various	1.473	0.000		0.000		0.000		-		0.000	0.000	1.473	-
Systems Engineering Support - JTDI	WR	NAWCAD : Patuxent River, MD	2.842	0.299	Oct 2020	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering Support - JTDI	C/FFP	KBR : Patuxent River, MD	0.345	0.495	May 2021	0.532	May 2022	0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering Support - JTDI	C/T&M	GSA/KBR : Patuxent River, MD	0.000	0.000		0.000		0.546	May 2023	-		0.546	0.000	0.546	-
		Subtotal	6.665	1.186		0.632		0.774		-		0.774	Continuing	Continuing	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	46.465	7.380		5.952		6.437		-		6.437	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3167 / *Joint Technical Data Integration (JTDI)*

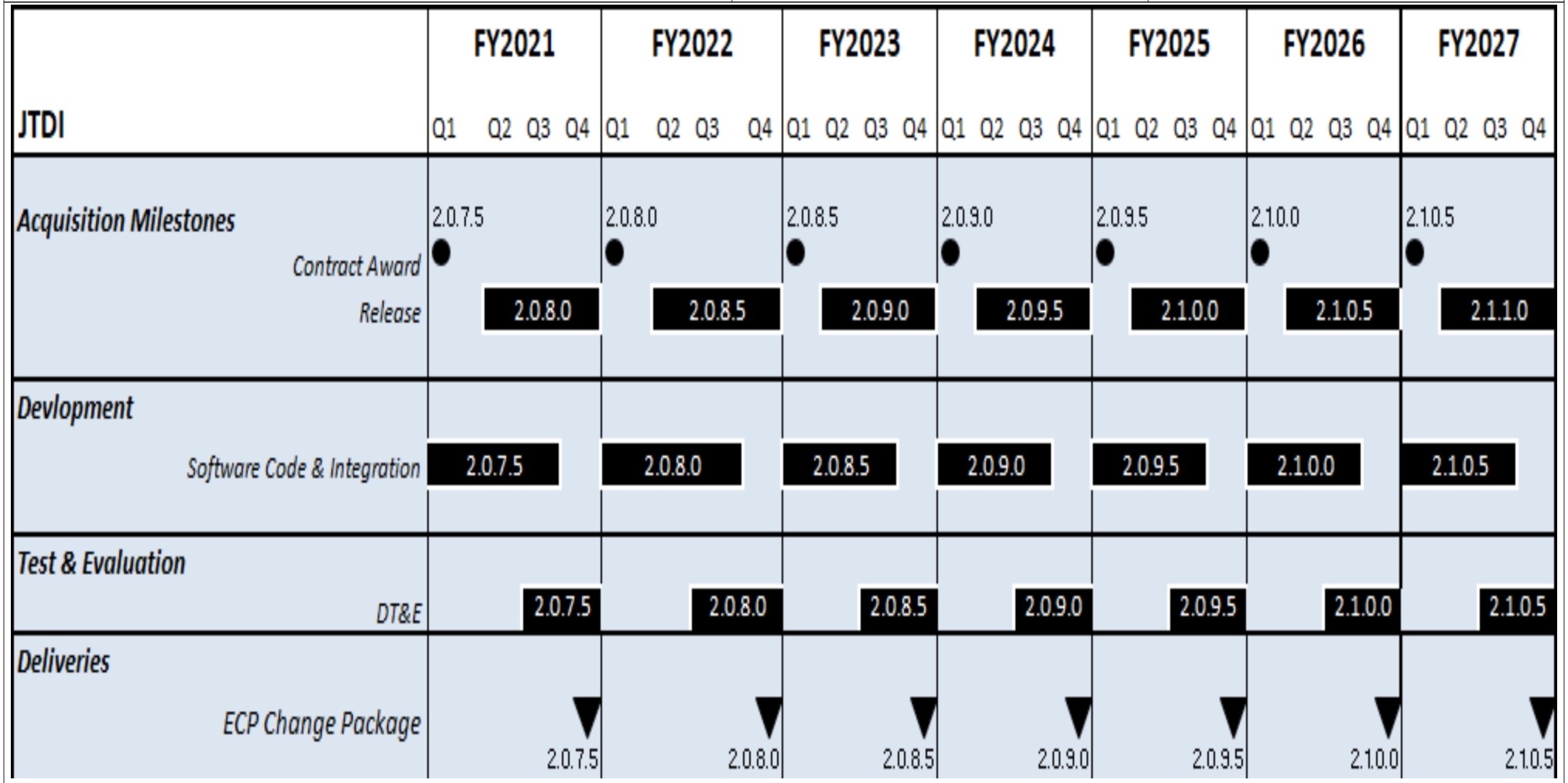

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3167 / *Joint Technical Data Integration (JTDI)*

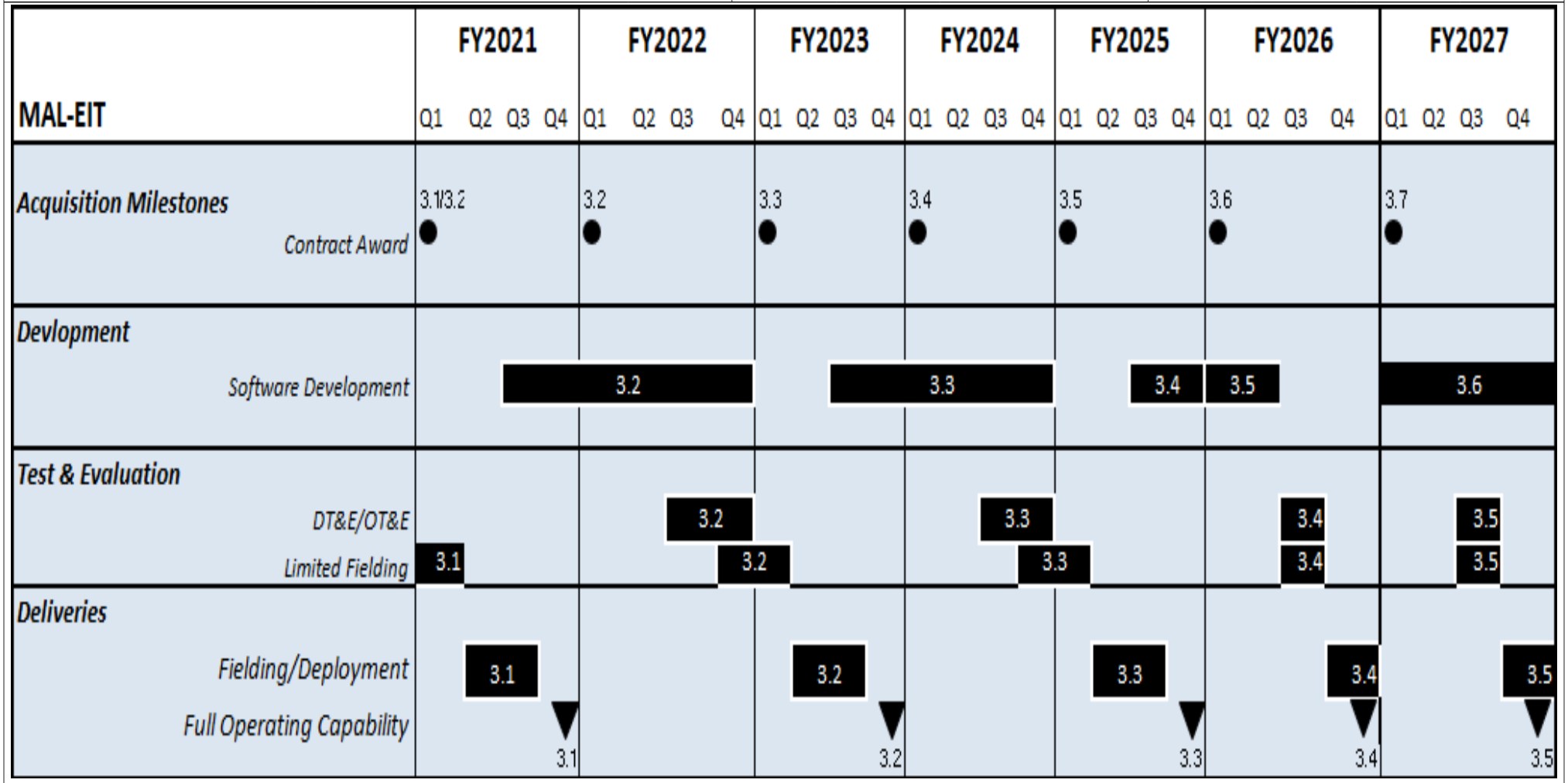

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3167 / *Joint Technical Data Integration (JTDI)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
JTDI				
Release 2.0.8.0	2	2021	4	2021
Release 2.0.8.5	2	2022	4	2022
Release 2.0.9.0	2	2023	4	2023
Release 2.0.9.5	2	2024	4	2024
Release 2.1.0.0	2	2025	4	2025
Release 2.1.0.5	2	2026	4	2026
Release 2.1.1.0	2	2027	4	2027
Contract Award, Release 2.0.7.5	1	2021	1	2021
Contract Award, Release 2.0.8.0	1	2022	1	2022
Contract Award, Release 2.0.8.5	1	2023	1	2023
Contract Award, Release 2.0.9.0	1	2024	1	2024
Contract Award, Release 2.0.9.5	1	2025	1	2025
Contract Award, Release 2.1.0.0	1	2026	1	2026
Contract Award, Release 2.1.0.5	1	2027	1	2027
Development: Software Code & Integration: Release 2.0.7.5	1	2021	3	2021
Development: Software Code & Integration: Release 2.0.8.0	1	2022	3	2022
Development: Software Code & Integration: Release 2.0.8.5	1	2023	3	2023
Development: Software Code & Integration: Release 2.0.9.0	1	2024	3	2024
Development: Software Code & Integration: Release 2.0.9.5	1	2025	3	2025
Development: Software Code & Integration: Release 2.1.0.0	1	2026	3	2026
Development: Software Code & Integration: Release 2.1.0.5	1	2027	3	2027

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3167 / *Joint Technical Data Integration (JTDI)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
DT&E: Developmental Test & Evaluation: Release 2.0.7.5	3	2021	4	2021
DT&E: Developmental Test & Evaluation: Release 2.0.8.0	3	2022	4	2022
DT&E: Developmental Test & Evaluation: Release 2.0.8.5	3	2023	4	2023
DT&E: Developmental Test & Evaluation: Release 2.0.9.0	3	2024	4	2024
DT&E: Developmental Test & Evaluation: Release 2.0.9.5	3	2025	4	2025
DT&E: Developmental Test & Evaluation: Release 2.1.0.0	3	2026	4	2026
DT&E: Developmental Test & Evaluation: Release 2.1.0.5	3	2027	4	2027
DT&E: Engineering Change Package: Release 2.0.7.5	4	2021	4	2021
DT&E: Engineering Change Package: Release 2.0.8.0	4	2022	4	2022
DT&E: Engineering Change Package: Release 2.0.8.5	4	2023	4	2023
DT&E: Engineering Change Package: Release 2.0.9.0	4	2024	4	2024
DT&E: Engineering Change Package: Release 2.0.9.5	4	2025	4	2025
DT&E: Engineering Change Package: Release 2.1.0.0	4	2026	4	2026
DT&E: Engineering Change Package: Release 2.1.0.5	4	2027	4	2027
MAL-EIT				
Acquisition Milestone: Contract Award: Contract Award (9)	1	2021	1	2021
Acquisition Milestone: Contract Award: Contract Award (10)	1	2022	1	2022
Acquisition Milestone: Contract Award: Contract Award (11)	1	2023	1	2023
Acquisition Milestone: Contract Award: Contract Award (12)	1	2024	1	2024
Acquisition Milestone: Contract Award: Contract Award (13)	1	2025	1	2025
Acquisition Milestone: Contract Award: Contract Award (14)	1	2026	1	2026
Acquisition Milestone: Contract Award: Contract Award (15)	1	2027	1	2027
Acquisition Milestone: Software Development: Software Development (5)	3	2021	4	2022
Acquisition Milestone: Software Development: Software Development (6)	3	2023	4	2024
Acquisition Milestone: Software Development: Software Development (7)	3	2025	4	2025

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3167 / *Joint Technical Data Integration (JTDI)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Acquisition Milestone: Software Development: Software Development (8)	1	2026	2	2026
Acquisition Milestone: Software Development: Software Development (9)	1	2027	4	2027
Test & Evaluation: Technical Evaluation DT&E/OT&E: Technical Evaluation DT&E/ OT&E (6)	3	2022	4	2022
Test & Evaluation: Technical Evaluation DT&E/OT&E: Technical Evaluation DT&E/ OT&E (7)	3	2024	4	2024
Test & Evaluation: Technical Evaluation DT&E/OT&E: Technical Evaluation DT&E/ OT&E (8)	3	2026	3	2026
Test & Evaluation: Technical Evaluation DT&E/OT&E: Technical Evaluation DT&E/ OT&E (9)	3	2027	3	2027
Test & Evaluation: Limited Fielding: Limited Fielding (5)	4	2022	1	2023
Test & Evaluation: Limited Fielding: Limited Fielding (6)	4	2024	1	2025
Test & Evaluation: Limited Fielding: Limited Fielding (7)	3	2026	3	2026
Test & Evaluation: Limited Fielding: Limited Fielding (8)	3	2027	3	2027
Deliveries: Fielding/Deloyment: Fielding/Deployment (3)	2	2021	3	2021
Deliveries: Fielding/Deloyment: Fielding/Deployment (4)	2	2023	3	2023
Deliveries: Fielding/Deloyment: Fielding/Deployment (5)	2	2025	3	2025
Deliveries: Fielding/Deloyment: Fielding/Deployment (6)	4	2026	4	2026
Deliveries: Fielding/Deloyment: Fielding/Deployment (7)	4	2027	4	2027
Deliveries: Full Operating Capability: Full Operating Capability (4)	4	2021	4	2021
Deliveries: Full Operating Capability: Full Operating Capability (5)	4	2023	4	2023
Deliveries: Full Operating Capability: Full Operating Capability (6)	4	2025	4	2025
Deliveries: Full Operating Capability: Full Operating Capability (7)	4	2026	4	2026
Deliveries: Full Operating Capability: Full Operating Capability (8)	4	2027	4	2027

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605013N / *Information Technology Development*	Project (Number/Name) 3185 / *Joint Airlift Information System (JALIS)*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3185: *Joint Airlift Information System (JALIS)*	3.023	0.293	0.365	0.474	-	0.474	0.567	0.546	0.505	0.514	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

JALIS is an operational scheduling and aircraft management system that facilitates real-time data analysis. JALIS is a critical element in the management of DoD air logistics assets. JALIS allows:

(1) DoD Service Personnel to submit airlift requirements for DoD Personnel and cargo
(2) Air Logistics Flying Units to communicate their aircraft availability in a real-time graphic display
(3) Designated Scheduling Organizations to compare airlift requirements with available aircraft
(4) Designated Scheduling Organizations to create mission assignments

JALIS informs applicable users of mission details and modifications by using a combination of system displays and email updates. JALIS is geographically distributed and has a user base in excess of 4,000 members. JALIS facilitates the movement of thousands of DoD Personnel and tons of cargo annually in support of the following:

(1) Navy Unique Fleet Essential Airlift
(2) Army's Operational Support Airlift Agency (OSAA)
(3) United States Transportation Command (USTRANSCOM)
(4) United States Marine Corps (USMC)

The Joint Chiefs of Staff mandates JALIS as the official DoD Airlift scheduling system for Operational Support Airlift (OSA). JALIS meets the requirement for multi-service coordinated Air Logistics scheduling as directed by Chairman, Joint Chiefs of Staff. The Navy is designated as lead agency for sponsoring and funding the JALIS program.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Joint Air Logistic Information System (JALIS)	0.293	0.365	0.474	0.000	0.474
Articles:	-	-	-	-	-
FY 2022 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3185 / *Joint Airlift Information System (JALIS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Upgrade release 2.33 will concentrate on developing a new user interface that does not require Microsoft Internet Explorer. ***FY 2023 Base Plans:*** 1. Complete new user interface (UI) started in FY22 2. Merge five JALIS databases into one; modify JALIS accordingly (upgrade 2.34). New capability will need to include: a. Transferring aircraft between scheduling organizations b. Ability to schedule connecting flights between scheduling orgs 3. Create new mapping capability compatible with the new UI (upgrade 2.34) ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 increase of $0.109M supports additional testing requirements associated with the mapping capability being developed for the new user interface.					
Accomplishments/Planned Programs Subtotals	0.293	0.365	0.474	0.000	0.474

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

As a general rule, IT development programs use an agile software development methodology therefore milestones, tasks and phases are often conducted in parallel vice sequentially.

Contract activities will focus on developing the following capabilities:

(1) Improved functionality for flight scheduling
(2) Improved coordination between JALIS scheduling organizations
(3) Integration of JALIS and JALIS Dashboard functions

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3185 / *Joint Airlift Information System (JALIS)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development, Analysis and QA support	C/CPFF	NAVWAR : New Orleans, LA	3.023	0.293	Feb 2021	0.365	Feb 2022	0.474	Feb 2023	-		0.474	Continuing	Continuing	Continuing
		Subtotal	3.023	0.293		0.365		0.474		-		0.474	Continuing	Continuing	N/A

Remarks

Development efforts are focused on improving system querying and reporting performance, as well as automating and simplifying common user tasks.

	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.023	0.293		0.365		0.474		-		0.474	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3185 / *Joint Airlift Information System (JALIS)*

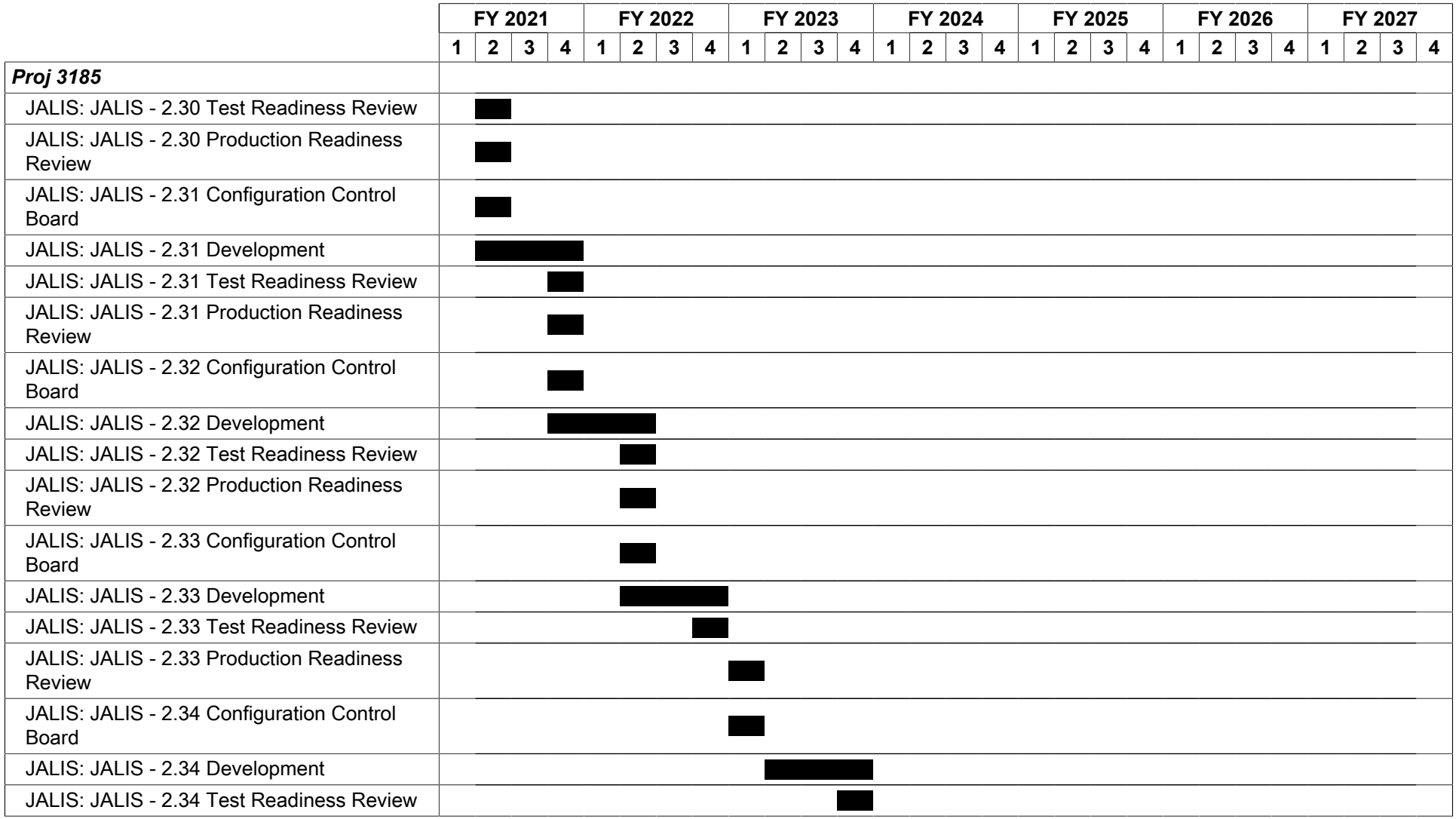

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3185 / *Joint Airlift Information System (JALIS)*

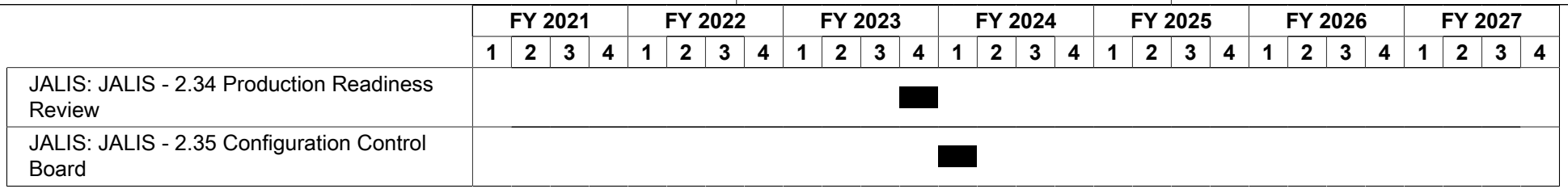

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3185 / *Joint Airlift Information System (JALIS)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3185				
JALIS: JALIS - 2.30 Test Readiness Review	2	2021	2	2021
JALIS: JALIS - 2.30 Production Readiness Review	2	2021	2	2021
JALIS: JALIS - 2.31 Configuration Control Board	2	2021	2	2021
JALIS: JALIS - 2.31 Development	2	2021	4	2021
JALIS: JALIS - 2.31 Test Readiness Review	4	2021	4	2021
JALIS: JALIS - 2.31 Production Readiness Review	4	2021	4	2021
JALIS: JALIS - 2.32 Configuration Control Board	4	2021	4	2021
JALIS: JALIS - 2.32 Development	4	2021	2	2022
JALIS: JALIS - 2.32 Test Readiness Review	2	2022	2	2022
JALIS: JALIS - 2.32 Production Readiness Review	2	2022	2	2022
JALIS: JALIS - 2.33 Configuration Control Board	2	2022	2	2022
JALIS: JALIS - 2.33 Development	2	2022	4	2022
JALIS: JALIS - 2.33 Test Readiness Review	4	2022	4	2022
JALIS: JALIS - 2.33 Production Readiness Review	1	2023	1	2023
JALIS: JALIS - 2.34 Configuration Control Board	1	2023	1	2023
JALIS: JALIS - 2.34 Development	2	2023	4	2023
JALIS: JALIS - 2.34 Test Readiness Review	4	2023	4	2023
JALIS: JALIS - 2.34 Production Readiness Review	4	2023	4	2023
JALIS: JALIS - 2.35 Configuration Control Board	1	2024	1	2024

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605013N / *Information Technology Development*	Project (Number/Name) 3432 / *NMMES-TR*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3432: *NMMES-TR*	73.628	8.786	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	82.414
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The NMMES-TR is an Information Technology (IT) acquisition program that will provide a sustainable enterprise IT solution leveraging Commercial, Off-The-Shelf (COTS) technology and business processes for shore maritime maintenance. Unlike the uniquely custom designed status quo toolset, the NMMES-TR solution will not implement extensive product customization to match the current maintenance business processes; but rather, maintenance business processes will be modified to match the software solution, thereby adopting industry best practices. Accordingly, the solution will be more flexible to the BPR process, and more agile to capitalize on efficiency improvement opportunities and innovations. This will facilitate alignment with the Optimized Fleet Response Plan (OFRP) by assisting the maintenance activities with accomplishing assigned tasks as planned in order that submarines, aircraft carriers, and surface ships can properly train and deploy on schedule. NMMES-TR will also provide a modern solution that will be more effective and efficient in combating cybersecurity threats, and capable of continuous monitoring.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Systems Integration and MRO/PPM Solution	8.786	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: N/A					
FY 2023 Base Plans: N/A					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	8.786	0.000	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Based on the results of the Analysis of Alternatives completed in FY17, NMMES-TR will acquire cloud hosted COTS applications using an incremental approach based on the required functionality for the shore maritime maintenance community. This program will integrate the following Mission Tasks; Maintenance, Repair and

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3432 / *NMMES-TR*

Overhaul (MRO), Project and Portfolio Management, Supply Chain Management, Environmental Safety and Occupational Health (ESOH) and Data Analytics. The program will use a third-party Systems Integrator to integrate existing legacy systems with cloud hosted COTS applications that will be deployed to the Navy's Regional Maintenance Centers, public naval shipyards, ship repair facilities, and other maintenance activities. The incremental approach provides off ramps in the event that not all functionality can be delivered within the cost/schedule/performance constraints of the program.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3432 / *NMMES-TR*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NOBLE Prototype	SS/CPFF	Army PEO STRI : Orlando, FL	29.950	3.963	Mar 2021	0.000		0.000		-		0.000	0.000	33.913	-
Risk Reduction Pilot	C/CPFF	Kapsuun : WNY	10.751	0.000		0.000		0.000		-		0.000	0.000	10.751	-
		Subtotal	40.701	3.963		0.000		0.000		-		0.000	0.000	44.664	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PMO Support	Various	Various : WNY & Norfolk	22.354	2.626	Mar 2021	0.000		0.000		-		0.000	0.000	24.980	-
Community of Practice	WR	Various : Various	10.178	1.707	Mar 2021	0.000		0.000		-		0.000	0.000	11.885	-
		Subtotal	32.532	4.333		0.000		0.000		-		0.000	0.000	36.865	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JITC	MIPR	Fort Huachuca : AZ	0.032	0.048	Oct 2020	0.000		0.000		-		0.000	0.000	0.080	-
Cyber Security	MIPR	Various : Various	0.363	0.442	Oct 2020	0.000		0.000		-		0.000	0.000	0.805	-
		Subtotal	0.395	0.490		0.000		0.000		-		0.000	0.000	0.885	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	73.628	8.786		0.000		0.000		-		0.000	0.000	82.414	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3432 / *NMMES-TR*

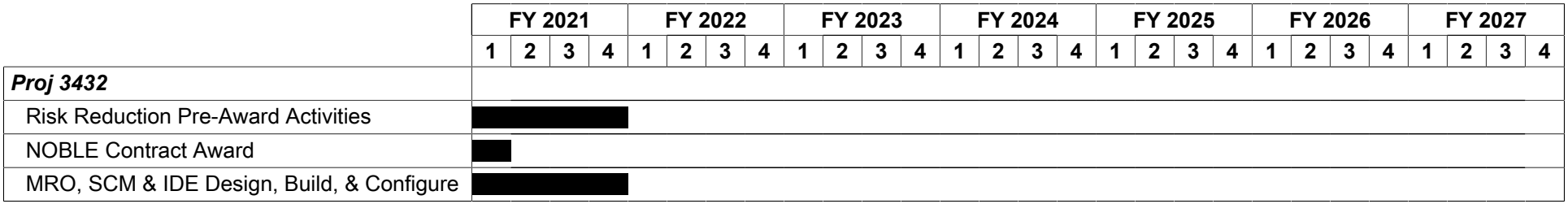

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 3432 / *NMMES-TR*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3432				
Risk Reduction Pre-Award Activities	1	2021	4	2021
NOBLE Contract Award	1	2021	1	2021
MRO, SCM & IDE Design, Build, & Configure	1	2021	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605013N / *Information Technology Development*	Project (Number/Name) 9406 / *Maintenance Data Warehouse*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
9406: *Maintenance Data Warehouse*	101.185	35.023	31.466	44.122	-	44.122	43.714	42.797	43.300	44.018	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Maintenance Data Warehouse funds the Naval Aviation Enterprise (NAE) components, in coordination with Navy LOG-IT, of digital transformation which is a critical component of improving readiness; giving Navy users access to authoritative truth data and automating inefficient manual processes. It will be executed in a fully agile manner providing continuous fleet readiness improvements across the FYDP. The initial configuration will be supported with an agile Minimal Viable Product (MVP) as the foundation for continuous capability introduction. The Aviation Logistics Environment (ALE) will provide the seamless environment to support the integration of the other capabilities developed in Maintenance Data Warehouse.

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.

Aviation Data Warehouse/Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE) program is the next generation data warehouse containing over 30 years of aircraft maintenance, flight, components, and usage data. Through the use of web-based, commercial off the shelf software for data load, analysis, query, and reporting tools, the user has the capabilities to effectively obtain readiness data in a near real-time environment, as well as providing historical data for long range planning, trend and records analysis, records reconstruction, and compliance with technical directives. DECKPLATE supports the mission of the warfighter who requires a single source of near real-time aviation data in which to base critical readiness decisions. DECKPLATE collects data from authoritative sources, such as the fleet maintenance systems, into a data warehouse. Because the warfighter only needs to access one database, the time consuming task of collecting various pieces of data from various sources will be reduced and ultimately eliminated. This also accomplishes a reduction in legacy systems mandated by Office of the Chief of Naval Operations. DECKPLATE manages total inventory for two major categories of assets, Aircraft (General Equipment) and Engine/Propulsion Systems/Modules (EPSMs) (Operating Materials & Supply). DECKPLATE is comprised of the transactional Aircraft Inventory and Readiness Reporting (DECK-AIRRS) and the Engine Transaction Reporting (DECK-ETR) subsystems which provide the complete lifecycle for aircraft and Engine/ Propulsion System/Modules (EPSMs). DECKPLATE has been identified as a level 1 financial feeder system due to the value of the aircraft and EPSM's managed in the system, and continues to respond to audit compliance and Cyber Security mandates. DECKPLATE is a core feeder system to numerous NAVAIR efforts.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9406 / *Maintenance Data Warehouse*

Condition Based Maintenance Plus (CBM+) solution is an initiative which provides Naval Aviation Enterprise with common enabling capabilities which deliver timely data-driven, decisional information to optimize aircraft availability and materiel readiness by incorporating health and usage leading indicators into the failure mode mitigation process, enabling the Warfighter to more efficiently meet mission requirements through automated analysis and decision making processes. The CBM+ initiative increases readiness through streamlined maintenance processes which provide the sustainment base with timely, actionable logistics/engineering data and integrated analytics not previously available, enabling engineers and acquisition professionals to support system improvements based on CBM+ acquired data and analytic results. CBM+ provides the enabling infrastructure and storage solutions within an Enterprise common environment needed to store and analyze weapon system sensor data to extend the life of current and new acquisition aircraft, realizing savings from reductions in field (organizational and intermediate) maintenance actions, reduced functional check flight hours, mishap mitigation, and reduced parts usage.

Vector supports the development of a common logistics analytical tool which provides a single view of the data to focus on aircraft readiness, maintenance, supply, cost, and man-hours. Vector provides naval aviation with a common view of approved key performance metrics and the capability to perform multi-system analysis of Ready for Tasking (RFT)/Ready Basic Aircraft (RBA) Gap drivers, 'Top-Down' aircraft systems analysis down to the component level. Vector identifies system performance trends early to mitigate future readiness and cost impacts to the fleet. This is critical for fleet understanding of readiness degraders and issue resolution.

Dynamic Scheduling provides insight and the ability to collaborate and affect schedules across all levels of maintenance and MRO systems. Advanced scheduling capabilities interfaced with current future MRO system to enable system assisted scheduling, optimization and opportunistic maintenance. Dynamic Scheduling will have access to demand across the NAE and will improve readiness across all levels of maintenance by allowing precise planning and execution.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Aviation Data Warehouse/Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE)	4.118	4.565	4.754	0.000	4.754
Articles:	-	-	-	-	-
FY 2022 Plans: Continue development of additional financial management requirements for the DECKPLATE financial feeder subsystems, Engine Management and Aircraft Inventory Readiness and Reporting System (AIRRS), required because of annual Financial Management and Comptroller (FM&C) audits; Continue development and enhancements as a result of Naval Aviation Maintenance Program (NAMP) policy changes, and emerging fleet and cyber security requirements. Continue alignment with Digital Transformation Plan (DTP) modernization vectors and application rationalization; implement data extract procedures with the Naval Aviation Maintenance System (NAMS)/Agile Warfighter Analytics Readiness Environment (AWARE). Implement NAMS data ingest processes to maintain NAMP compliance during the roll-out of NAMS in support of DECKPLATE transactional systems AIRRS, Engine Management and Technical Directives Reporting System (TDRS); Integration and capability enablement will continue with other key NAVAIR Defense Business Systems and data analytics initiatives, including Joint Technical Data Integration (JTDI), Common FRACAS Tool (CFT), Configuration					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Management System (CMS), Aviation Logistics Environment (ALE) Product Life Cycle (PLM) Management, Naval Aviation Maintenance System in support of Navy Digital Transformation Initiatives. ***FY 2023 Base Plans:*** Continue development of additional financial management requirements for the DECKPLATE financial feeder subsystems, Engine Management and Aircraft Inventory Readiness and Reporting System (AIRRS), required to comply with Financial Management and Comptroller (FM&C) audits; Continue development and enhancements as a result of Naval Aviation Maintenance Program (NAMP) policy changes, and emerging fleet and cyber security requirements. Continue alignment with Digital Transformation Plan (DTP) modernization vectors and application rationalization; implement data extract and exchange procedures with the Navy Maintenance Repair and Overhaul (N-MRO)/Agile Warfighter Analytics Readiness Environment (AWARE), and DON ADVANA Jupiter Integrated Data Environments. Implement NMRO / IDE data ingest and interface processes to maintain NAMP compliance during the roll-out of NMRO in support of DECKPLATE transactional systems AIRRS, Engine Management and Technical Directives Reporting System (TDRS); Integration and capability enablement will continue with other key NAVAIR Defense Business Systems and data analytics initiatives, including Joint Technical Data Integration (JTDI), NAVAIR Standard Data Repository, Common FRACAS Tool (CFT), Configuration Management System (CMS), Aviation Logistics Environment (ALE) Product Life Cycle (PLM) Management, NMRO in support of Navy Digital Transformation efforts. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 increase of $0.189M supports system enhancements required to mitigate DECKPLATE Financial Statement Audit Notification of Findings Reported (NFR) on Enterprise Identity Management.					
Title: Aviation Logistics Environment (ALE)	27.816	24.533	37.117	0.000	37.117
Articles:	-	-	-	-	-
FY 2022 Plans: The Aviation Logistics Environment (ALE) program will have two Limited Deployments: (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					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
and Supply Chain Management. ALE will also complete Cloud Migration that migrates the entire AvPLM infrastructure into the Cloud. ***FY 2023 Base Plans:*** The Aviaton Logistics Environment (ALE) program will have Limited Deployments (1) System Migration that enables the retirement of legacy logistics IT systems/applications and incorporates the key capabilities for management of Engineering Product Data, end item configuration, deficiency reporting, and technical manuals. Designated Core Functionality Migration/Integration (FMI). (2) Secured Enterprise Solution Licensing to expand user base for Aviation Product Lifecycle Management (AvPLM). (3) Integration with Other Navy Modernization efforts to include Navy MRO & Supply Chain Management at Depot level. Integrated HW and SW baselines for modernization product support. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 increase of $12.584M supports acquisition of additional licenses to scale capabilities to more users, and support Integration/Transition of legacy system capabilities into the modernized AvPLM, ESB and MEGA enterprise solutions. All users must have ALE Licenses in order to be able to retire Legacy Applications/ Systems.					
Title: Condition Based Maintenance Plus (CBM+) ***Articles:*** ***FY 2022 Plans:*** Complete development/modernization efforts. ***FY 2023 Base Plans:*** N/A ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 decrease of $0.141M due to completion of development/modernization efforts and shifting to sustainment efforts for CBM+ analytic capabilities.	0.198 -	0.141 -	0.000 -	0.000 -	0.000 -
Title: Dynamic Scheduling	1.000	0.000	0.000	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9406 / *Maintenance Data Warehouse*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Articles:	-	-	-	-	-
FY 2022 Plans: N/A ***FY 2023 Base Plans:*** N/A ***FY 2023 OCO Plans:*** N/A					
Title: Vector	1.891	2.227	2.251	0.000	2.251
Articles:	-	-	-	-	-
FY 2022 Plans: Begin migration to DoD Cloud Native Services and Integration with common data environments. Begin analysis for interface requirements to Naval Aviation Maintenance System/Agile Warfighter Analytics Readiness Environment/Product Lifecycle Management/Enterprise Service Bus. Respond to emerging Fleet and Naval Aviation Enterprise customer requirements. New capabilities include implementation of Aviation Support Equipment Analysis and Metric Reports to support identifying Aircraft Readiness Impact Degraders, Phase III Integration and Consolidation of Commercial Off-the-Shelf Business Intelligence Integration for Aircraft Status Dashboard and Aircraft Maintenance Daily Status Dashboard, begin analysis for transition changes for Joint Strike Fighter Aviation Logistics Information System to Operational Data Integrated Network. Continue Air Launched Weapons Requirements Analysis Module on Secure Internet Protocol Router Network. ***FY 2023 Base Plans:*** Implement Reliability and Maintainability analytic capabilities for Navy Joint Strike Fighter and Unmanned Air Vehicle Analytics. Continue migration to DoD Cloud Native Services and Integration with common data environments. Implement integration to Naval Aviation Maintenance System/Naval Operational Business Logistics Environment/Product Lifecycle Management/Enterprise Service Bus. Respond to emerging Fleet and Naval Aviation Enterprise customer requirements; continue Integration and Consolidation of Commercial Off-the-Shelf Business Intelligence Integration. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:***					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9406 / *Maintenance Data Warehouse*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
FY23increase of $0.024M due to RAMP 4.0 enhancement requirements.					
Accomplishments/Planned Programs Subtotals	35.023	31.466	44.122	0.000	44.122

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• OPN/4268/DECKPLATE: *Other Aviation Support Equipment*	2.238	2.196	2.342	-	2.342	2.374	2.414	2.479	2.527	Continuing	Continuing
• OPN/4268/CBM: *Other Aviation Support Equipment*	0.288	0.285	0.301	-	0.301	0.306	0.311	0.319	0.324	Continuing	Continuing

Remarks

DECKPLATE and CBM funds are only a portion of OPN Line Item 4268.

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.

Aviation Data Warehouse/Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE) -
Development services will be performed under a competitively awarded contract. The task order contains a matrix of tasks and required levels of performance. Follow on contracts will utilize the same competitive system. The services provided under the contract support acquisition will not encompass tasks inherently Governmental in nature. The Statement of Work includes a matrix that establishes the minimum acceptable performance standards.

Condition Based Maintenance Plus (CBM+) - Development will be provided using competitively awarded contracts coordinated via NAVAIR's Aviation Logistics Environment (ALE) Program Management and supporting Contract Business Office, and will contain a matrix of tasks and required levels of performance. Follow on Contracts will utilize the same competitive system. The Services provided under the contract support acquisition will not encompass tasks inherently Governmental in nature, and Statements of Work will include a matrix that establishes the minimum acceptable performance standards.

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.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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Vector Software - Development services will be performed under a competitively awarded Cyber Security (CS) Contract. Follow on Contracts will utilize the same competitive system. The Services provided under the contract support acquisitions will not encompass tasks inherently governmental in nature. The Statements of Work will include a matrix that establishes the minimum acceptable performance standards.

Dynamic Scheduling - 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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9406 / *Maintenance Data Warehouse*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior year Prod Def no longer funded in the FYDP	Various	Various : Various	18.138	0.000		0.000		0.000		-		0.000	0.000	18.138	-
Development for Aviation Logistics Environment (ALE)	Various	Various : Various	29.838	13.963	Feb 2021	15.157	Feb 2022	22.653	Feb 2023	-		22.653	Continuing	Continuing	Continuing
Development for Decision Knowledge Programming for Logistics Analysis and Technical Evalutaion (DECKPLATE)	C/CPFF	Spalding : Lexington Park, MD	10.569	2.406	Dec 2020	2.960	Dec 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Development for Condition Based Maintenance Plus (CBM+)	C/CPFF	KBR : Patuxent River, MD	21.206	0.198	Dec 2020	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Development for Vector	C/CPFF	KBR : Patuxent River, MD	0.332	1.381	Nov 2020	1.524	Dec 2021	1.256	Dec 2022	-		1.256	Continuing	Continuing	Continuing
Development for Vector	C/CPFF	Spalding : Lexington Park, MD	0.000	0.000		0.150	Dec 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Development for Dynamic Scheduling	Various	Various : Various	0.528	0.795	Jan 2021	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Development for Decision Knowledge Programming for Logistics Analysis and Technical Evalutaion (DECKPLATE)	C/CPFF	KBR : Patuxent River, MD	0.400	0.076	Dec 2020	0.342	Dec 2021	0.247	Dec 2022	-		0.247	Continuing	Continuing	Continuing
Development for Aviation Logistics Environment (ALE)	C/CPFF	KBR : Patuxent River, MD	0.593	3.884	Jan 2021	2.090	Jan 2022	4.255	Jan 2023	-		4.255	Continuing	Continuing	Continuing
Development for Vector	C/FFP	Cyber Analytics : Patuxent River, MD	0.146	0.000		0.225	Feb 2022	0.235	Feb 2023	-		0.235	Continuing	Continuing	Continuing
Development for Aviation Logistics Environment (ALE) Ground Station	C/CPFF	Redstone : Huntsville, AL	0.000	2.697	Jun 2021	2.500	Jun 2022	2.550	Jun 2023	-		2.550	Continuing	Continuing	Continuing
Development for Decision Knowledge Programming	C/CPFF	TBD : TBD	0.000	0.000		0.000		2.823	Dec 2022	-		2.823	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9406 / *Maintenance Data Warehouse*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
for Logistics Analysis and Technical Evalutaion (DECKPLATE)															
Development for Vector	C/CPFF	TBD : TBD	0.000	0.000		0.000		0.150	Dec 2022	-		0.150	Continuing	Continuing	Continuing
		Subtotal	81.750	25.400		24.948		34.169		-		34.169	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support for DECKPLATE	WR	NAWCAD : Patuxent River, MD	8.247	1.394	Oct 2020	1.263	Oct 2021	1.684	Oct 2022	-		1.684	Continuing	Continuing	Continuing
Prior year Prod Def no longer funded in the FYDP	Various	Various : Various	0.628	0.000		0.000		0.000		-		0.000	0.000	0.628	-
Program Management Support for CBM+	WR	NAWCAD : Patuxent River, MD	4.100	0.000		0.141	Oct 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Program Management Support for Aviation Logistics Environment (ALE)	WR	NAWCAD : Patuxent River, MD	6.101	1.500	Oct 2020	0.854	Oct 2021	1.585	Oct 2022	-		1.585	Continuing	Continuing	Continuing
Program Management Support for Vector	WR	NAWCAD : Patuxent River, MD	0.068	0.388	Oct 2020	0.203	Oct 2021	0.485	Oct 2022	-		0.485	Continuing	Continuing	Continuing
Program Management Support for Vector	C/CPFF	KBR : Patuxent River, MD	0.093	0.122	Nov 2020	0.125	Dec 2021	0.125	Dec 2022	-		0.125	Continuing	Continuing	Continuing
Program Management Support for Dynamic Scheduling	WR	NAWCAD : Patuxent River, MD	0.198	0.205	Oct 2020	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Management Support for Aviation Logistics Environment (ALE)	WR	NAWCWD : China Lake, CA	0.000	0.000		0.000		0.112	Oct 2022	-		0.112	Continuing	Continuing	Continuing
Program Management Support - TRAVEL	WR	NAVAIR HQ : Patuxent River, MD	0.000	0.000		0.040	Oct 2021	0.000		-		0.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Aviation Logistics Environment (ALE)															
Program Management Support for Aviation Logistics Environment (ALE)	C/CPFF	KBR : Patuxent River, MD	0.000	2.166	Feb 2021	1.999	Feb 2022	2.039	Feb 2023	-		2.039	Continuing	Continuing	Continuing
Program Management Support for Aviation Logistics Environment (ALE)	C/CPFF	Booz Allen Hamilton : Patuxent River, MD	0.000	1.670	Feb 2021	1.593	Feb 2022	1.625	Feb 2023	-		1.625	Continuing	Continuing	Continuing
Program Management Support for Aviation Logistics Environment (ALE)	WR	Fleet Readiness Center Mid Atlantic : Patuxent River, MD	0.000	0.975	Oct 2021	0.300	Oct 2021	1.231	Oct 2022	-		1.231	Continuing	Continuing	Continuing
Program Management Support for DECKPLATE	WR	Fleet Readiness Center Mid Atlantic : Patuxent River, MD	0.000	0.242	Oct 2020	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Management Support for Aviation Logistics Environment (ALE)	WR	NAVWAR : San Diego, CA	0.000	0.961	Oct 2021	0.000		1.067	Oct 2022	-		1.067	Continuing	Continuing	Continuing
		Subtotal	19.435	9.623		6.518		9.953		-		9.953	Continuing	Continuing	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	101.185	35.023		31.466		44.122		-		44.122	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9406 / *Maintenance Data Warehouse*

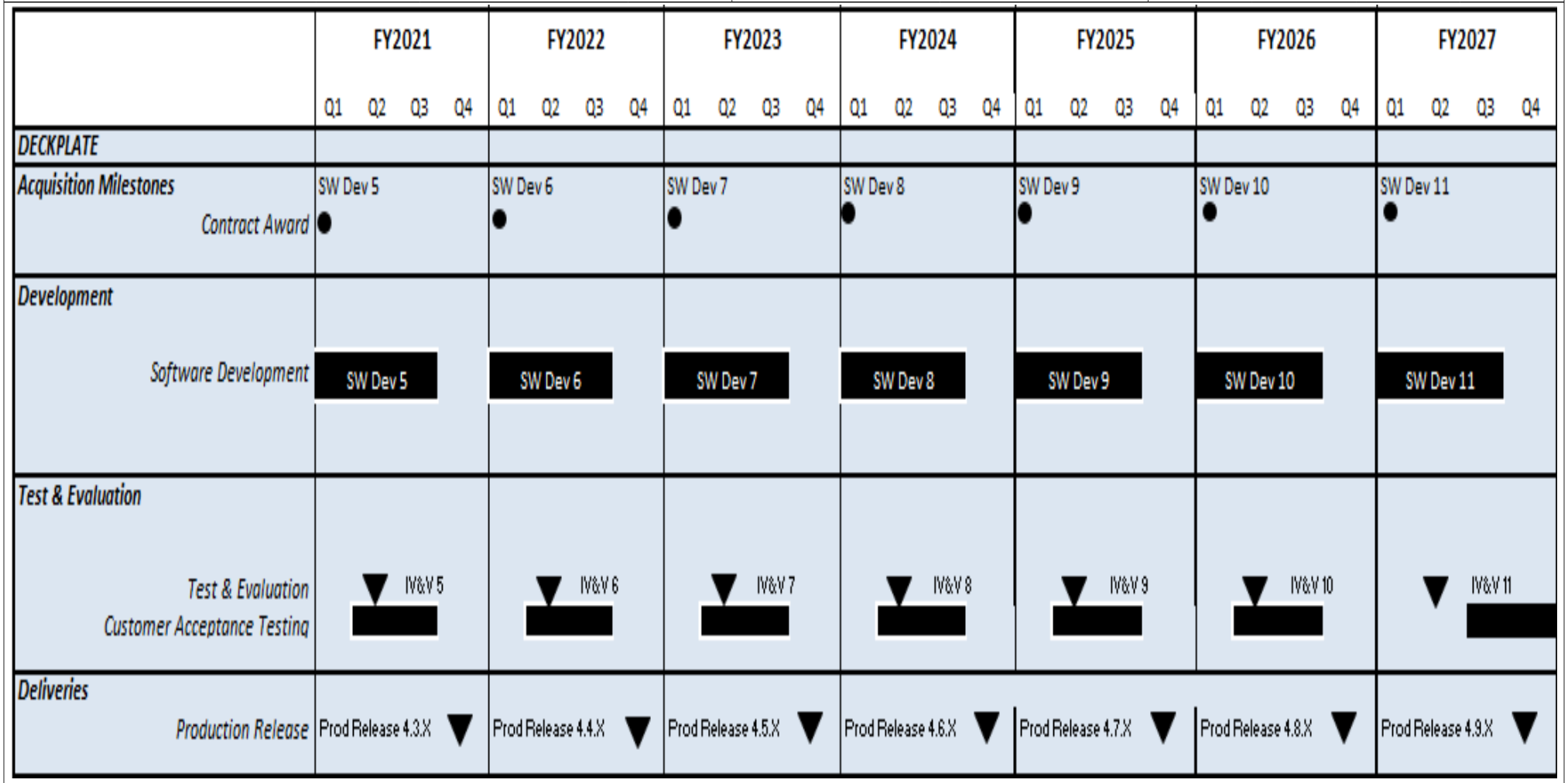

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9406 / *Maintenance Data Warehouse*

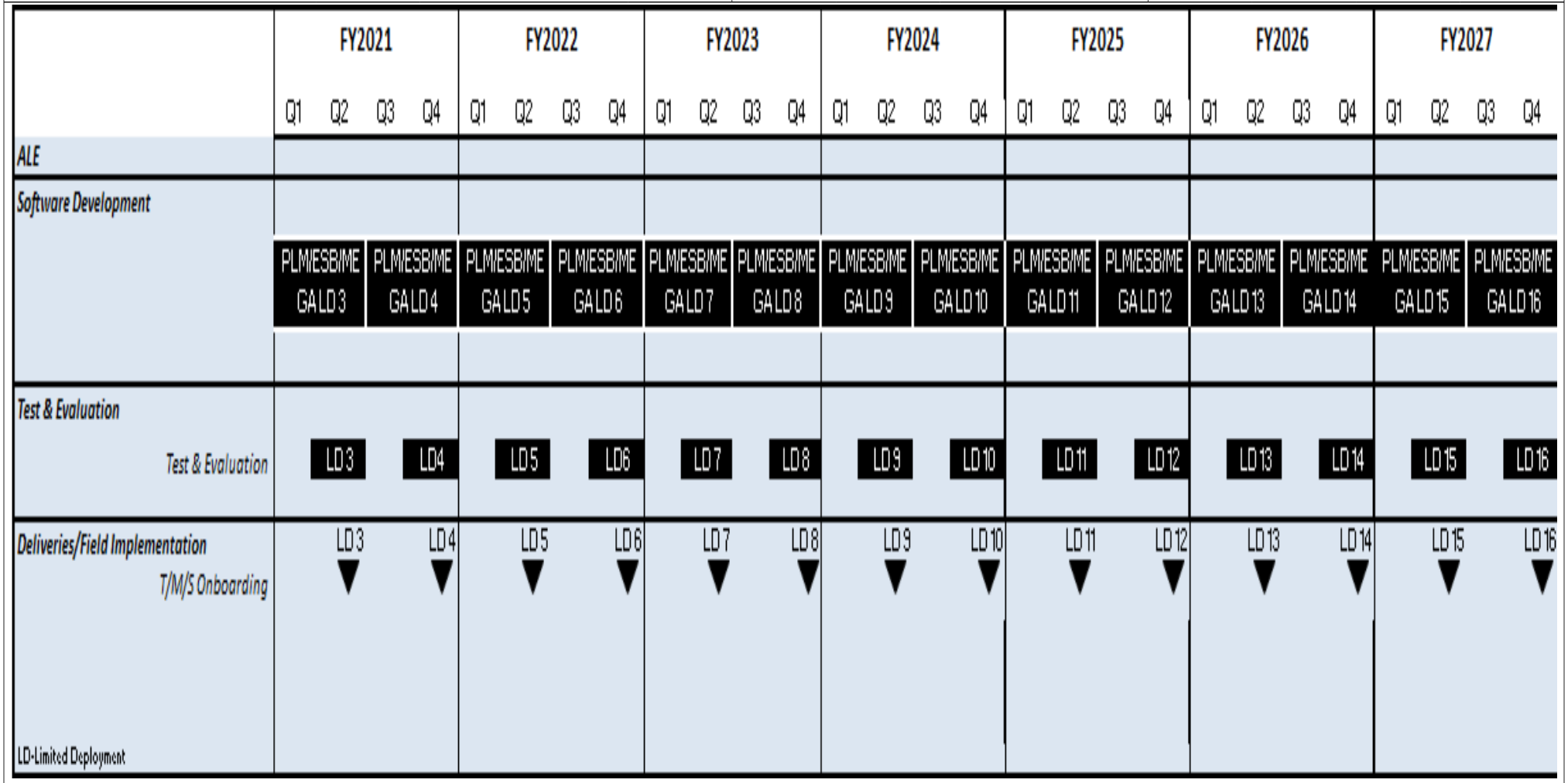

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9406 / *Maintenance Data Warehouse*

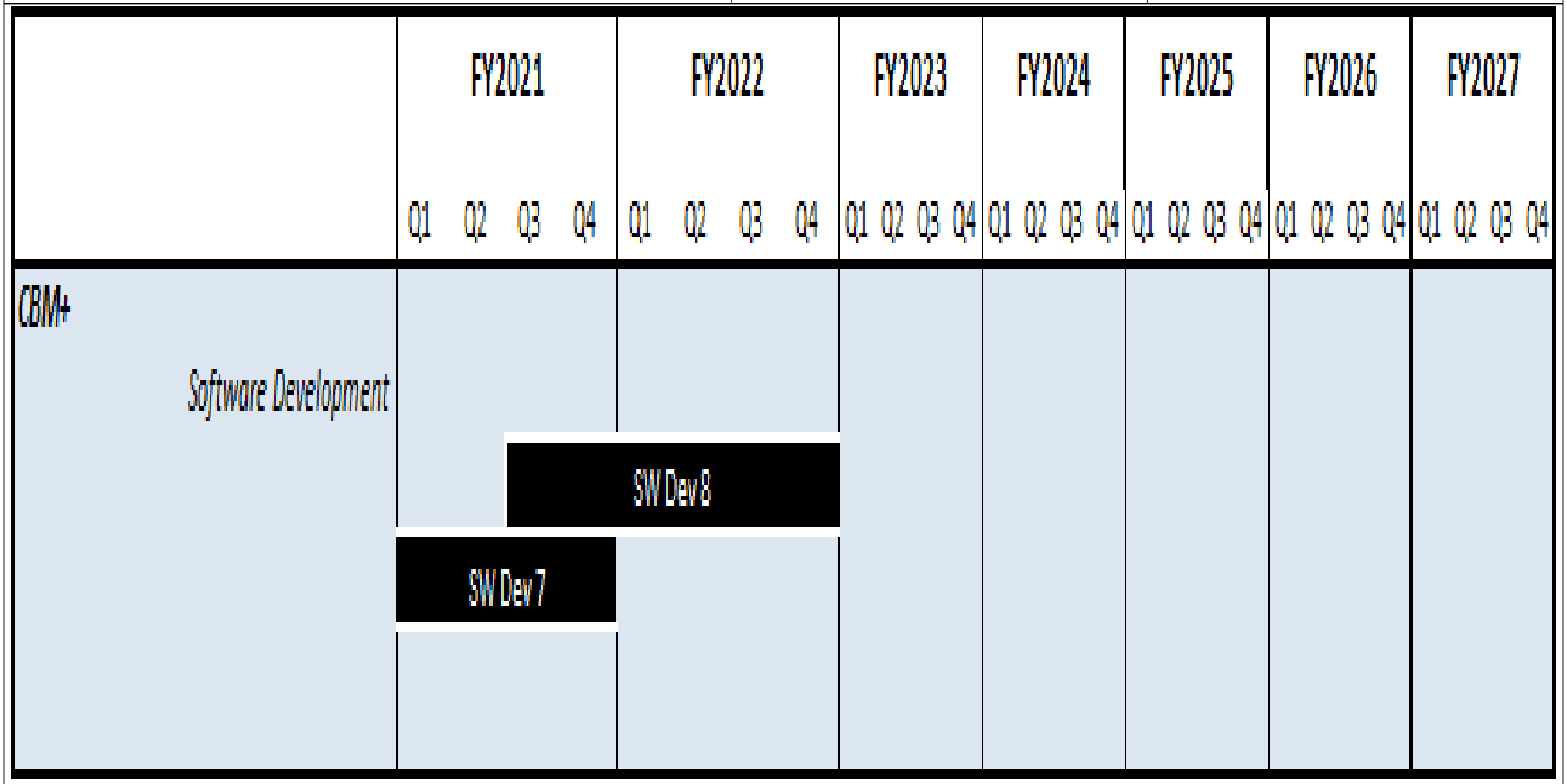

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9406 / *Maintenance Data Warehouse*

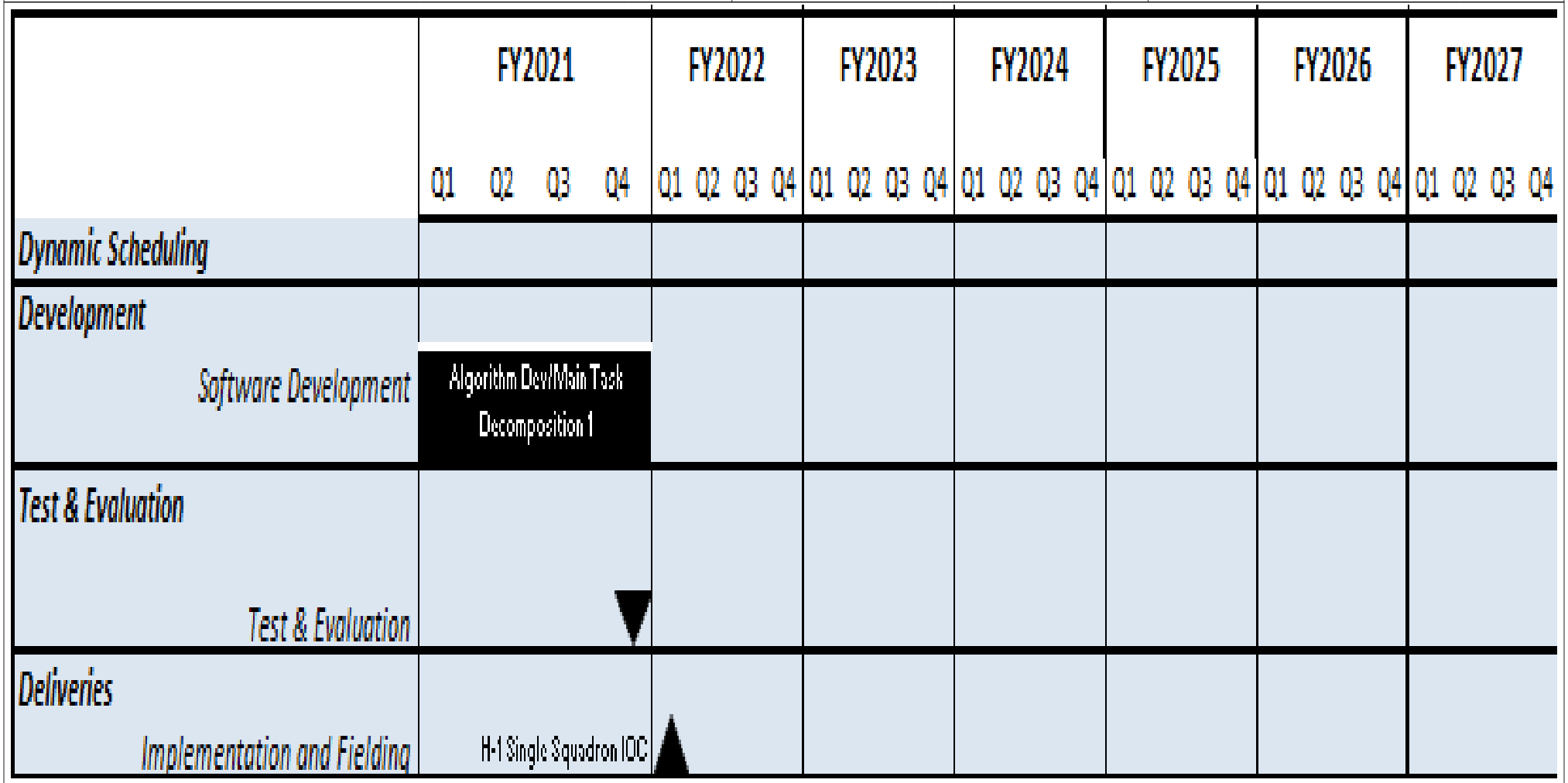

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9406 / *Maintenance Data Warehouse*

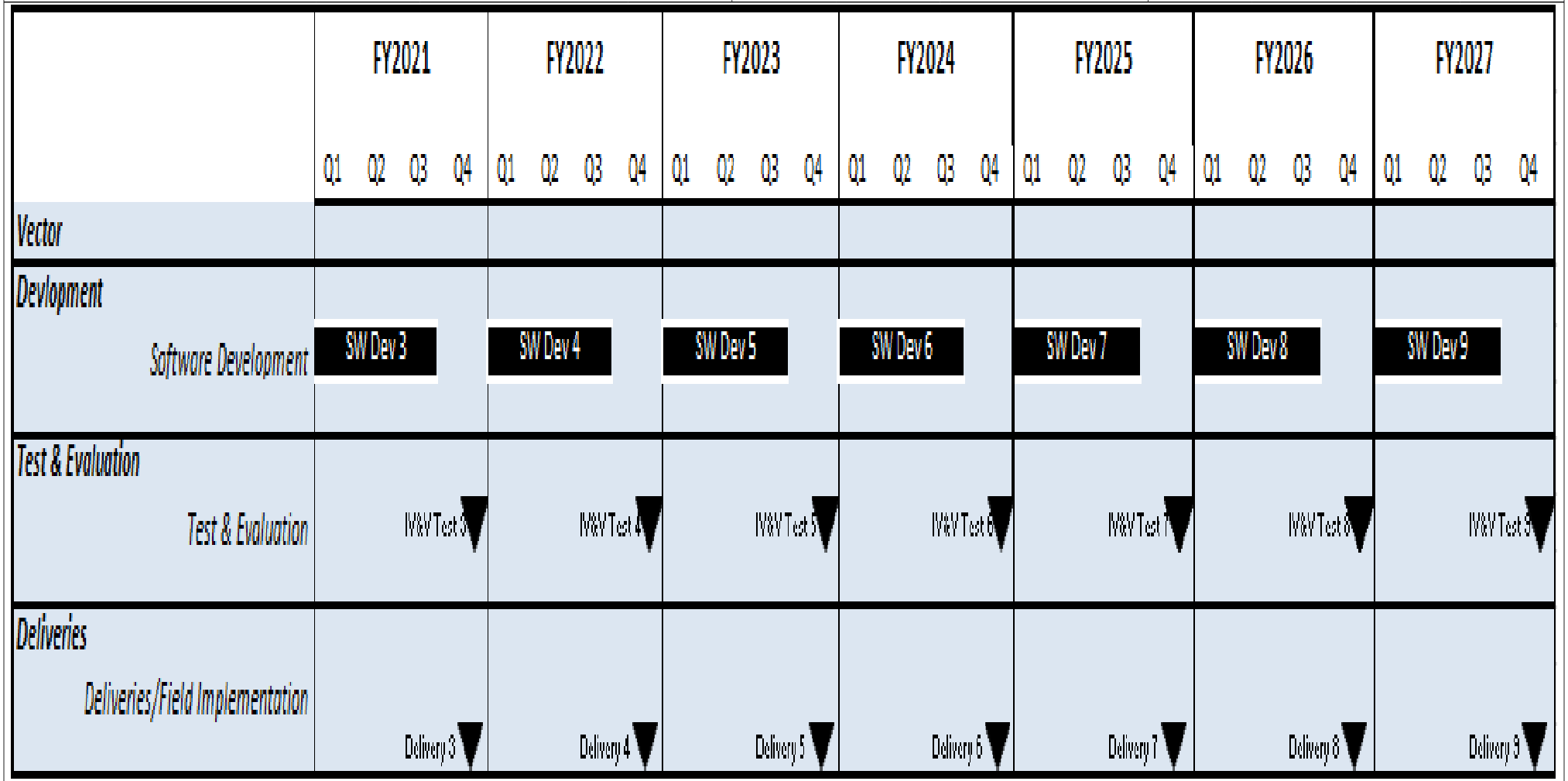

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9406 / *Maintenance Data Warehouse*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
DECKPLATE IT EXXCOMM Portfolio Consolidation				
Systems Development: Software Development: Contract Award 5	1	2021	1	2021
Systems Development: Software Development: Requirements and Design 5	1	2021	1	2021
Systems Development: Software Development: Software Development and Design: (IT Labor/HW/ Hosting/Licensing) 5	1	2021	3	2021
Systems Development: Software Development: Audit Compliance/JSF Phase III Software Development 5	1	2021	3	2021
Systems Development: Software Development: Integration and Capability Enablement5	1	2021	3	2021
Systems Development: Software Development: Contract Award 6	1	2022	1	2022
Systems Development: Software Development: Requirements and Design 6	1	2022	3	2022
Systems Development: Software Development: Software Development and Design: (IT Labor/HW/ Hosting/Licensing) 6	1	2022	3	2022
Systems Development: Software Development: Contract Award 7	1	2023	1	2023
Systems Development: Software Development: Requirements and Design 7	1	2023	2	2023
Systems Development: Software Development: Software Development and Design: (IT Labor/HW/ Hosting/Licensing) 7	1	2023	3	2023
Systems Development: Software Development: Contract Award 8	1	2024	1	2024
Systems Development: Software Development: Requirements and Design 8	1	2024	2	2024
Systems Development: Software Development: Schedule Detail Softwware Development and Sesing (IT Labor/HW/Hosting Licensing) 8	1	2024	3	2024
Systems Development: Software Development: Contract Award 9	1	2025	1	2025
Systems Development: Software Development: Requirements and Design 9	1	2025	3	2025

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Systems Development: Software Development: Schedule Detail Software Development and Design: (IT Labor/HW/ Hosting/Licensing) 9	1	2025	3	2025
Systems Development: Software Development: Contract Award 10	1	2026	1	2026
Systems Development: Software Development: Requirements and Design 10	1	2026	3	2026
Systems Development: Software Development: Schedule Detail Software Development and Design: (IT Labor/HW/ Hosting/Licensing) 10	1	2026	3	2026
Systems Development: Software Development: Contract Award 11	1	2027	1	2027
Systems Development: Software Development: Requirements and Design 11	1	2027	3	2027
Systems Development: Software Development: Schedule Detail Software Development and Design: (IT Labor/HW/ Hosting/Licensing) 11	1	2027	3	2027
Test & Evaluation: DECKPLATE IV&V Testing 5	2	2021	2	2021
Test & Evaluation: DECKPLATE Customer Acceptance Testing 5	2	2021	3	2021
Test & Evaluation: DECKPLATE IV&V Testing 6	2	2022	2	2022
Test & Evaluation: DECKPLATE Customer Acceptance Testing 6	2	2022	3	2022
Test & Evaluation: DECKPLATE IV&V Testing 7	2	2023	2	2023
Test & Evaluation: DECKPLATE Customer Acceptance Testing 7	2	2023	3	2023
Test & Evaluation: DECKPLATE IV&V Testing 8	2	2024	2	2024
Test & Evaluation: DECKPLATE Customer Acceptance Testing 8	2	2024	3	2024
Test & Evaluation: DECKPLATE IV&V Testing 9	2	2025	2	2025
Test & Evaluation: DECKPLATE Customer Acceptance Testing 9	2	2025	3	2025
Test & Evaluation: DECKPLATE IV&V Testing 10	2	2026	2	2026
Test & Evaluation: DECKPLATE Customer Acceptance Testing 10	2	2026	3	2026
Test & Evaluation: DECKPLATE IV&V Testing 11	2	2027	2	2027
Test & Evaluation: DECKPLATE Customer Acceptance Testing 11	3	2027	4	2027
Deliveries: DECKPLATE Production Release Delivery 4.3.X	4	2021	4	2021
Deliveries: DECKPLATE Production Release Delivery 4.4.X	4	2022	4	2022

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9406 / *Maintenance Data Warehouse*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Deliveries: DECKPLATE Production Release Delivery 4.5.X	4	2023	4	2023
Deliveries: DECKPLATE Production Release Delivery 4.6.X	4	2024	4	2024
Deliveries: DECKPLATE Production Release Delivery 4.7.X	4	2025	4	2025
Deliveries: DECKPLATE Production Release Delivery 4.8.X	4	2026	4	2026
Deliveries: DECKPLATE Production Release Delivery 4.9.X	4	2027	4	2027
Condition Based Maintenance Plus (CBM+)				
Systems Development: Software Development: CBM+ Requirements Development 8	3	2021	3	2022
Systems Development: Software Development: Contract Award-CBM+ Component Tracking Integration 8	3	2021	3	2021
Systems Development: Software Development: CBM+ Component Tracking Integration 8	4	2021	4	2021
Systems Development: Software Development: Contract Award-CBM+ Regime Recognition Production Capability 8	4	2021	4	2022
Aviation Logistics Environment (ALE)				
Software Development: PLM Solution/ESB/MEGA Limited Deployment 3	1	2021	2	2021
Software Development: PLM Solution/ESB/MEGA Limited Deployment 4	3	2021	4	2021
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
Software Development: PLM Solution/ESB/MEGA Limited Deployment 7	1	2023	2	2023
Software Development: PLM Solution/ESB/MEGA Limited Deployment 8	3	2023	4	2023
Software Development: PLM Solution/ESB/MEGA Limited Deployment 9	1	2024	2	2024
Software Development: PLM Solution/ESB/MEGA Limited Deployment 10	3	2024	4	2024
Software Development: PLM Solution/ESB/MEGA Limited Deployment 11	1	2025	2	2025
Software Development: PLM Solution/ESB/MEGA Limited Deployment 12	3	2025	4	2025
Software Development: PLM Solution/ESB/MEGA Limited Deployment 13	1	2026	2	2026
Software Development: PLM Solution/ESB/MEGA Limited Deployment 14	3	2026	4	2026

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Software Development: PLM Solution/ESB/MEGA Limited Deployment 15	1	2027	2	2027
Software Development: PLM Solution/ESB/MEGA Limited Deployment 16	3	2027	4	2027
Test and Evaluation: LD 3 Test and Evaluation	2	2021	2	2021
Test and Evaluation: LD 4 Test and Evaluation	4	2021	4	2021
Test and Evaluation: LD 5 Test and Evaluation	2	2022	2	2022
Test and Evaluation: LD 6 Test and Evaluation	4	2022	4	2022
Test and Evaluation: LD 7 Test and Evaluation	2	2023	2	2023
Test and Evaluation: LD 8 Test and Evaluation	4	2023	4	2023
Test and Evaluation: LD 9 Test and Evaluation	2	2024	2	2024
Test and Evaluation: LD 10 Test and Evaluation	4	2024	4	2024
Test and Evaluation: LD 11 Test and Evaluation	2	2025	2	2025
Test and Evaluation: LD 12 Test and Evaluation	4	2025	4	2025
Test and Evaluation: LD 13 Test and Evaluation	2	2026	2	2026
Test and Evaluation: LD 14 Test and Evaluation	4	2026	4	2026
Test and Evaluation: LD 15 Test and Evaluation	2	2027	2	2027
Test and Evaluation: LD 16 Test and Evaluation	4	2027	4	2027
Implementation: Implementation: T/M/S Onboarding LD 3	2	2021	2	2021
Implementation: Implementation: T/M/S Onboarding LD 4	4	2021	4	2021
Implementation: Implementation: T/M/S Onboarding LD 5	2	2022	2	2022
Implementation: Implementation: T/M/S Onboarding LD 6	4	2022	4	2022
Implementation: Implementation: T/M/S Onboarding LD 7	2	2023	2	2023
Implementation: Implementation: T/M/S Onboarding LD 8	4	2023	4	2023
Implementation: Implementation: T/M/S Onboarding LD 9	2	2024	2	2024
Implementation: Implementation: T/M/S Onboarding LD 10	4	2024	4	2024
Implementation: Implementation: T/M/S Onboarding LD 11	2	2025	2	2025

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9406 / *Maintenance Data Warehouse*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Implementation: Implementation: T/M/S Onboarding LD 12	4	2025	4	2025
Implementation: Implementation: T/M/S Onboarding LD 13	2	2026	2	2026
Implementation: Implementation: T/M/S Onboarding LD 14	4	2026	4	2026
Implementation: Implementation: T/M/S Onboarding LD 15	2	2027	2	2027
Implementation: Implementation: T/M/S Onboarding LD 16	4	2027	4	2027
Vector				
System Development: Software Development 3	1	2021	3	2021
System Development: Software Development 4	1	2022	3	2022
System Development: Software Development 5	1	2023	3	2023
System Development: Software Development 6	1	2024	3	2024
System Development: Software Development 7	1	2025	3	2025
System Development: Software Development 8	1	2026	3	2026
System Development: Software Development 9	1	2027	3	2027
Test and Evaluation: I V&V Testing 3	4	2021	4	2021
Test and Evaluation: I V&V Testing 4	4	2022	4	2022
Test and Evaluation: I V&V Testing 5	4	2023	4	2023
Test and Evaluation: I V&V Testing 6	4	2024	4	2024
Test and Evaluation: I V&V Testing 7	4	2025	4	2025
Test and Evaluation: I V&V Testing 8	4	2026	4	2026
Test and Evaluation: I V&V Testing 9	4	2027	4	2027
Deliveries: Software Capability Delivery 3 (RAMP Phase II, BI Integration Phase II, DEPOT Engines, Schedule Maintenance Planning, Weapons, Training Readiness Analytics Initial Deployment)	4	2021	4	2021
Deliveries: Software Capability Delivery 4 (ASD Interface, Daily Status, Support Equipment Analytics Initial Deployement)	4	2022	4	2022

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Deliveries: Software Capability Delivery 5 (JSF, Unmanned Aircraft Analytics Initial Deployment)	4	2023	4	2023
Deliveries: Software Capability Delivery 6 (Joint Navy / Air Force Data Analytics, Commercial Off-the-Shelf Business Intelligence Expanded Capabilities))	4	2024	4	2024
Deliveries: Software Capability Delivery 7 Software Analytic Capabilites	4	2025	4	2025
Deliveries: Software Capability Delivery 8 Software Analytic Capabilites	4	2026	4	2026
Deliveries: Software Capability Delivery 9 (Software Analytic Capabilities)	4	2027	4	2027
Dynamic Scheduling				
System Development: System Development: Algorithm Development/Maint Task Decomposition 1	1	2021	3	2021
Test and Evaluation: Test and Evaluation: Dynamic Scheduling Testing	4	2021	4	2021
Implementation and Fielding: Implementation and Fielding: Initial Operational Capability (IOC) Single Squadron H-1	1	2022	1	2022

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy											Date: April 2022	
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0605013N / *Information Technology Development*				Project (Number/Name) 9999 / *Congressional Adds*			
COST ($ in Millions)	**Prior Years**	**FY 2021**	**FY 2022**	**FY 2023 Base**	**FY 2023 OCO**	**FY 2023 Total**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**Cost To Complete**	**Total Cost**
9999: *Congressional Adds*	31.362	9.653	32.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	73.015
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

C599 - There is a misspelling in the Accomplishment name. Solutions vice Soutions.

A. Mission Description and Budget Item Justification

CONDITION BASED MAINTENANCE PLUS (CBM+):
The CBM+ solution is an initiative which provides Naval Aviation Enterprise with common enabling capabilities which deliver timely data-driven decisional information to optimize aircraft availability and materiel readiness by incorporating health and usage leading indicators into the failure mode mitigation process, enabling the Warfighter to more efficiently meet mission requirements through automated analysis and decision making processes. The CBM+ Initiative increases readiness through streamlined maintenance processes which provide actionable logistics/engineering data and integrated analytics not previously available, enabling engineers and acquisition professionals to support system improvements based on CBM+ acquired data and analytic results. CBM+ provides the enabling infrastructure and storage solutions within an Enterprise common environment needed to store and analyze weapon system sensor data to extend the life of current and new acquisition aircraft, realizing savings from reductions in field (organizational and intermediate) maintenance actions, reduced functional check flight hours, mishap mitigation, and reduced parts usage.

C777-Aviation Product Lifecycle Management (AvPLM) - Capability provides digital process integration with complete, secure and authoritative data, coordinated as part of approved Navy LOG-IT. AvPLM integrates the product life cycle to provide universal access to authoritative data and workflow automation, enabling configuration management of data, implementation of closed loop quality, and consolidation of engineering products and data. Connecting these processes using standardized digital tools and data accelerates the product development cycle and lowers costs for support and new capability integration. The Digital Thread capability includes development and demonstration of cyber security architectures for sustainment information systems, and development of a digital data product architecture and repository.

C778-Actionable Analytics for reliable maintenance provides the required Logistics Information Technology, data enablement, and Logistics/Engineering/Analytics domain expertise to realize predictive Condition Based Maintenance Plus (CBM+) use cases and business process within an Enterprise common CBM analytics environment to optimize aircraft availability and materiel readiness by incorporating health and usage leading indicators into the failure mode mitigation process, enabling the Warfighter to more efficiently meet mission requirements. The CBM+ analytics environment automates required maintenance, aircraft Health Monitoring System (HMS) sensor, and supporting data collection, storage, integration, and analysis capabilities across the Naval Aviation Enterprise, leveraging the integration of large scale on-premises, in cloud, and at edge Log IT solutions for proactive CBM+ data-driven decision support.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022
Congressional Add: Cyber Innovations in Classified Environments ***FY 2021 Accomplishments:*** This project will prototype innovative enhancements to existing commercial off-the-shelf (COTS) cross-domain capabilities that will improve the cyber resiliency of Naval Aviation, US Navy, and DoD weapon systems. Through this project, the NAWCAD Cyber Warfare Department (CWD) will work to ensure that warfighting systems and their directly corresponding support systems can maintain operational readiness and are survivable and mission capable in the face of modern cyber warfare threats. This project will address CWD-identified shortcomings related to multi-level security, real-time bi-directional communications from sensors/payloads and data sources to command and control (C2) exploitations across various security domains. In the end, this project will advance novel concepts and emerging technologies to better ensure Navy and DOD systems can maintain operational readiness and survive threats to the systems, platforms, and directly corresponding support systems in cyber-contested warfighting environments. ***FY 2022 Plans:*** N/A	2.896	0.000
Congressional Add: Cyber Soutions for Aviation Systems and Facilities ***FY 2021 Accomplishments:*** This project will develop and mature defensive cyber technologies, enhance cyber test tools, and perform red team analysis and defensive cyber operations supporting naval aviation platforms. Through the execution of this project, naval aviation cyber readiness will be ultimately improved and better assured. Risks to mission, readiness and safety will be considered across the portfolio and testing gaps critical to identifying those risks will be closed. More specifically, C599 covers: augmentation and maturation of laboratory capabilities, environments and customized toolsets across multiple NAVAIR sites and facilities to conduct cyber security Research, Development, Test and Evaluation (RDT&E) for NAVAIR programs; development aviation weapon systems customized tools, methodologies, and procedures identified from Cyber Risk Assessments, Cyber Table Tops, test and evaluation capability gaps and emergent threats; increased program and Fleet support capability for penetration testing, hands on adversarial assessments, and engineering investigations; enhanced intelligence collaboration supporting defensive and offensive cyber warfare. ***FY 2022 Plans:*** N/A	6.757	0.000
Congressional Add: Aviation innovative cyber solutions ***FY 2021 Accomplishments:*** N/A ***FY 2022 Plans:*** Funding supports the red team analysis, defensive cyber operations, and defensive cyber engineering efforts that serve naval aviation platform owners. Through the execution of this project, naval aviation cyber readiness will be ultimately improved and better assured. Risks to mission, readiness and safety	0.000	9.000

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9999 / *Congressional Adds*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022
will be considered across the portfolio and testing gaps critical to identifying those risks will be closed. C774 covers augmentation and maturation of laboratory capabilities, environments and customized toolsets across multiple NAVAIR sites and facilities to conduct cyber security Research, Development, Test and Evaluation (RDT&E) for NAVAIR programs; development of aviation weapon systems customized tools, methodologies, and procedures identified from Cyber Risk Assessments, Cyber Table Tops, test and evaluation capability gaps and emergent threats; increased program and Fleet support capability for penetration testing, hands on adversarial assessments, and engineering investigations; enhanced intelligence collaboration supporting defensive and offensive cyber warfare.		
Congressional Add: Cyber solutions in classified environments ***FY 2021 Accomplishments:*** N/A ***FY 2022 Plans:*** Funding supports the continued prototyping of innovative enhancements to existing commercial off-the-shelf (COTS) cross-domain capabilities that will improve the cyber resiliency of Naval Aviation, US Navy, and DoD weapon systems. The NAWCAD Cyber Warfare Department (CWD) is working to ensure that warfighting systems and their directly corresponding support systems can maintain operational readiness and are survivable and mission capable in the face of modern cyber warfare threats. This funding will help to address NAWCAD-identified shortcomings related to multi-level security, real-time bi-directional communications from sensors/payloads and data sources to command and control (C2) exploitations across various security domains. In the end, this project will advance novel concepts and emerging technologies to better ensure Navy and DOD systems can maintain operational readiness and survive threats to the systems, platforms, and directly corresponding support systems in cyber-contested warfighting environments.	0.000	6.000
Congressional Add: Warfare mission analysis in cyber contested environment ***FY 2021 Accomplishments:*** N/A ***FY 2022 Plans:*** Funding supports the incorporation of cyber capabilities into key DON Modeling and Simulation (M&S) capabilities, including but not limited to the Joint Simulation Environment (JSE). This resourcing will ultimately help to ensure the NAE warfighter is effective at fighting through a cyber-attack on their platforms, missions, or supporting infrastructure. In order to effectively do so, our mission analysis products and training environments must provide an accurate depiction of the contested battlespace, including cyber threat representation and realistic cyber-effects generation. This funding will enable the transformation of warfare mission analysis and M&S capabilities such that they might more accurately and completely represent a cyber-contested warfighting environment.	0.000	5.000
Congressional Add: Product lifecycle management for naval aviation	0.000	2.000

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022
FY 2021 Accomplishments: N/A ***FY 2022 Plans:*** Funding supports the extension of Naval Aviation Product Life Cycle Management (AvPLM) performance envelope for PLM which will allow us to expand the data model and implement additional capability such as LPD (Logistics Product Data), Model Based Systems Engineering (MBSE) efforts, Cost Readiness Impact Model (CRIM) and Discrepancy Reporting.		
Congressional Add: Actionable analytics for reliable maintenance ***FY 2021 Accomplishments:*** N/A ***FY 2022 Plans:*** Funding supports CBM Actionable Analytics to integrate NAVAIR's Integrated Data Environment Standard Data Repository with foundational cloud-native object storage, automated sensor data curation, and advanced analytics capabilities which support CBM predictive maintenance use cases and supporting business process, cost, and readiness improvement objectives.	0.000	4.000
Congressional Add: Advanced shipyard technologies ***FY 2021 Accomplishments:*** N/A ***FY 2022 Plans:*** Funding supports the development of a prototype Cyber Supply Chain Risk Management (C-SCRM) system to illuminate risk within the supply chain down to the individual component level. This will be accomplished through the development of system of system models utilizing techniques such as Model Based Systems Engineering (MBSE) instead of relying on classic document based approach. Analysis will leverage machine learning algorithms and artificial intelligence. Dashboards will be developed for those weapons systems that are aligned as well as a global dashboard for the Cyber Planning and Response Center. Some systems will require the creation of Software or Hardware Bill of Materials, in this case a standard data item description will be developed. An enterprise C-SCRM solution will allow for sharing of C-SCRM data across platforms, resulting in reductions in cost for each program office and schedule to meet the acquisition timeline. It will also reduce risk across the enterprise by illuminating and preventing vulnerabilities from propagating by sharing vulnerabilities to common critical systems and vendors before they find a way into the Fleet.	0.000	6.000
Congressional Adds Subtotals	9.653	32.000

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9999 / *Congressional Adds*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

CONDITION BASED MAINTENANCE PLUS:
Development services will be provided using a competitively awarded contract coordinated via NAVAIR's Aviation Logistics Environment (ALE) Program Management and supporting Contract Business Office, and will contain a matrix of tasks and required levels of performance. Follow on Contracts will utilize the same competitive system. The Services provided under the contract support acquisition will not encompass tasks inherently Governmental in nature, and Statements of Work will include a matrix that establishes the minimum acceptable performance standards.

MODEL BASED PRODUCT SUPPORT (MBPS):
NAVSEA 03R will modernize existing Command Technical Data (CTD), Configuration Management, Readiness and Provisioning / Outfitting logistics information technology systems. The MBPS project will follow a rapid delivery acquisition approach (incremental development and fielding of capabilities) to deliver an integrated and production ready solution.

To date the MBPS Program has released three (3) contracts to support development:

1) Other Transaction Authority (OTA) contract for incremental development to include initial "pick and click" type training
2) Sole source contract awarded to PTC for Software as a Service (SaaS)
3) Phase III SBIR Task Order 2 to Frontier Technology Inc to deliver foundational training execution

A FAR based contract will be awarded in the future to support sustainment. Following Limited deployment (LD) completion, MBPS will be deployed across the Navy enterprise and Full Operational Capability (FOC) established. Following full deployment, MBPS will enter the sustainment period of its lifecycle.

Aviation Product Lifecycle Management (AvPLM)
Development services will be awarded using an existing contract that contains a matrix of tasks and required levels of performance.

Actionable Analytics for reliable maintenance
Development services will be awarded using an existing contract that contains a matrix of tasks and required levels of performance.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technology Refreshment (PLM)	Various	Various : Various	4.150	0.000		0.000		0.000		-		0.000	0.000	4.150	-
Cyber Innovations	Various	Various : Various	0.000	2.896	Jun 2021	0.000		0.000		-		0.000	0.000	2.896	-
Cyber Solutions	Various	Various : Various	0.000	1.246	Mar 2021	0.000		0.000		-		0.000	0.000	1.246	-
Aviation Innovative Cyber Solutions	Various	Various : Various	0.000	0.000		1.800	May 2022	0.000		-		0.000	0.000	1.800	-
Actionable Analytics Development	C/CPFF	GSA Aliant : Patuxent River, MD	0.000	0.000		3.500	May 2022	0.000		-		0.000	0.000	3.500	-
AvPLM Development	C/CPFF	GSA Aliant : Patuxent River, MD	0.000	0.000		2.000	May 2022	0.000		-		0.000	0.000	2.000	-
Advanced shipyard technologies	Various	Various : Various	0.000	0.000		4.800	Jun 2022	0.000		-		0.000	0.000	4.800	-
		Subtotal	4.150	4.142		12.100		0.000		-		0.000	0.000	20.392	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
HW/SW (CBM+)	C/FFP	Washington HQ Services : Washington, DC	9.761	0.000		0.000		0.000		-		0.000	0.000	9.761	9.761
Software Development for (CBM+)	C/CPFF	Wyle : Patuxent River, MD	1.700	0.000		0.000		0.000		-		0.000	0.000	1.700	1.700
Systems Engineering (PLM)	WR	NSWC : Philadelphia, PA	0.980	0.000		0.000		0.000		-		0.000	0.000	0.980	-
Systems Engineering (PLM)	WR	NSWC : Crane, ID	1.664	0.000		0.000		0.000		-		0.000	0.000	1.664	-
Systems Engineering (PLM)	WR	NSWC : Port Hueneme, CA	3.944	0.000		0.000		0.000		-		0.000	0.000	3.944	-
Technical Support (PLM)	Various	Various : Various	2.865	0.000		0.000		0.000		-		0.000	0.000	2.865	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering (PLM)	WR	NSWC : Carderock, MD	1.180	0.000		0.000		0.000		-		0.000	0.000	1.180	-
Systems Engineering (PLM)	WR	NSWC : Dahlgren, VA	0.730	0.000		0.000		0.000		-		0.000	0.000	0.730	-
Systems Engineering (PLM)	WR	NAVSEALOGCEN : Mechanicsburg, PA	4.368	0.000		0.000		0.000		-		0.000	0.000	4.368	-
		Subtotal	27.192	0.000		0.000		0.000		-		0.000	0.000	27.192	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support for (CBM+)	WR	NAWCAD : Patuxent River, MD	0.020	0.000		0.000		0.000		-		0.000	0.000	0.020	-
Cyber Solutions Mgmt Support	WR	NAWCAD : Patuxent River, MD	0.000	4.736	Mar 2021	0.000		0.000		-		0.000	0.000	4.736	-
Cyber Solutions Mgmt Support	WR	NAWCWD : China Lake, CA	0.000	0.450	Mar 2021	0.000		0.000		-		0.000	0.000	0.450	-
Cyber Solutions Mgmt Support	WR	NAWCWD : Point Mugu, CA	0.000	0.325	Mar 2021	0.000		0.000		-		0.000	0.000	0.325	-
Aviation Innovative Cyber Solutions Mgmt Spt	WR	NAWCAD : Patuxent River, MD	0.000	0.000		7.200	Apr 2022	0.000		-		0.000	0.000	7.200	-
Cyber Soluntions Classified Environ Mgmt Spt	WR	NAWCAD : Patuxent River, MD	0.000	0.000		6.000	Apr 2022	0.000		-		0.000	0.000	6.000	-
Warfare Mission Analysis Mgmt Spt	WR	NAWCAD : Patuxent River, MD	0.000	0.000		5.000	Apr 2022	0.000		-		0.000	0.000	5.000	-
Advanced shipyard technologies	WR	NAWCAD : Patuxent River, MD	0.000	0.000		1.200	Apr 2022	0.000		-		0.000	0.000	1.200	-
Actionable Analytics Mgmt Support	WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.500	Apr 2022	0.000		-		0.000	0.000	0.500	-
		Subtotal	0.020	5.511		19.900		0.000		-		0.000	0.000	25.431	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
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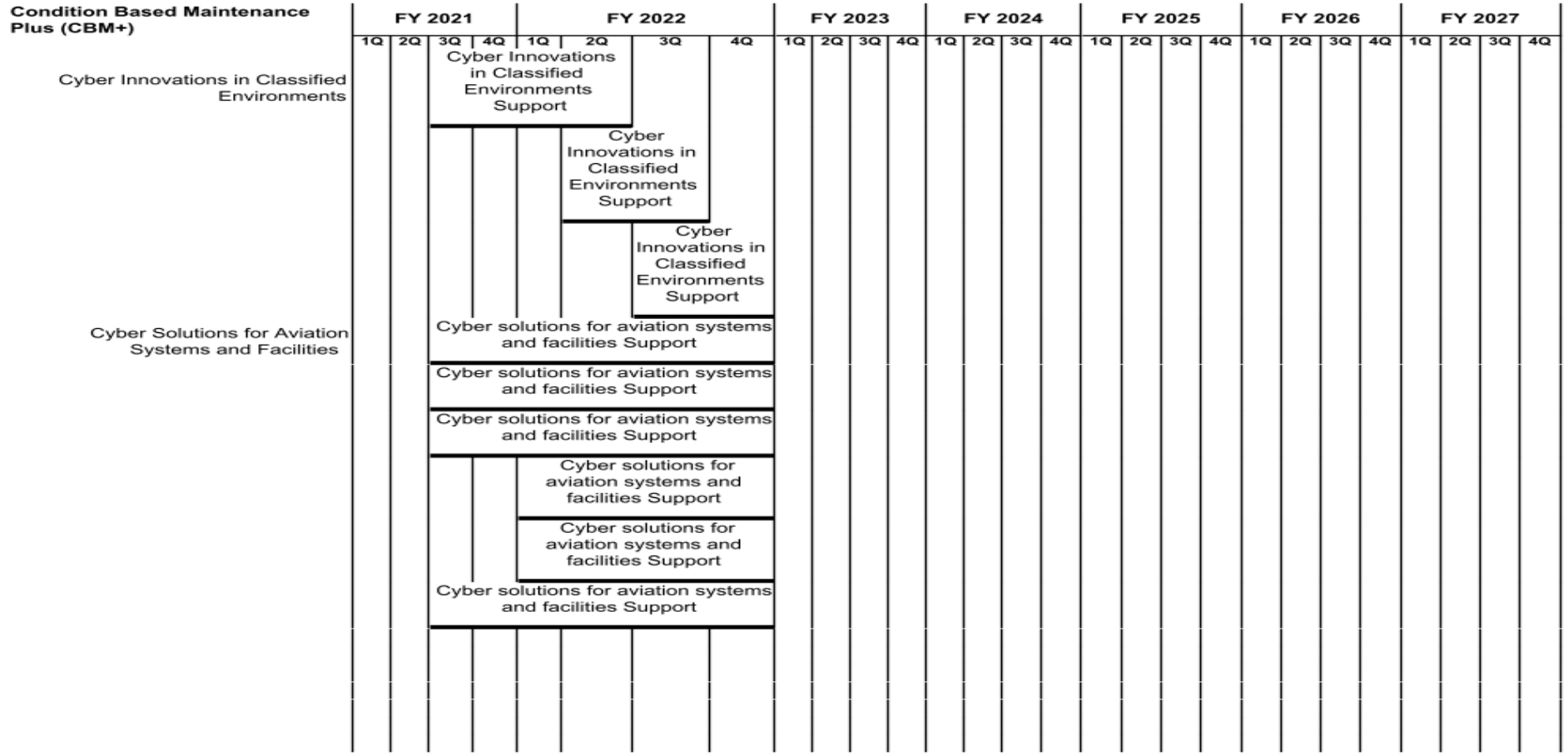
	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	31.362	9.653		32.000		0.000		-		0.000	0.000	73.015	N/A

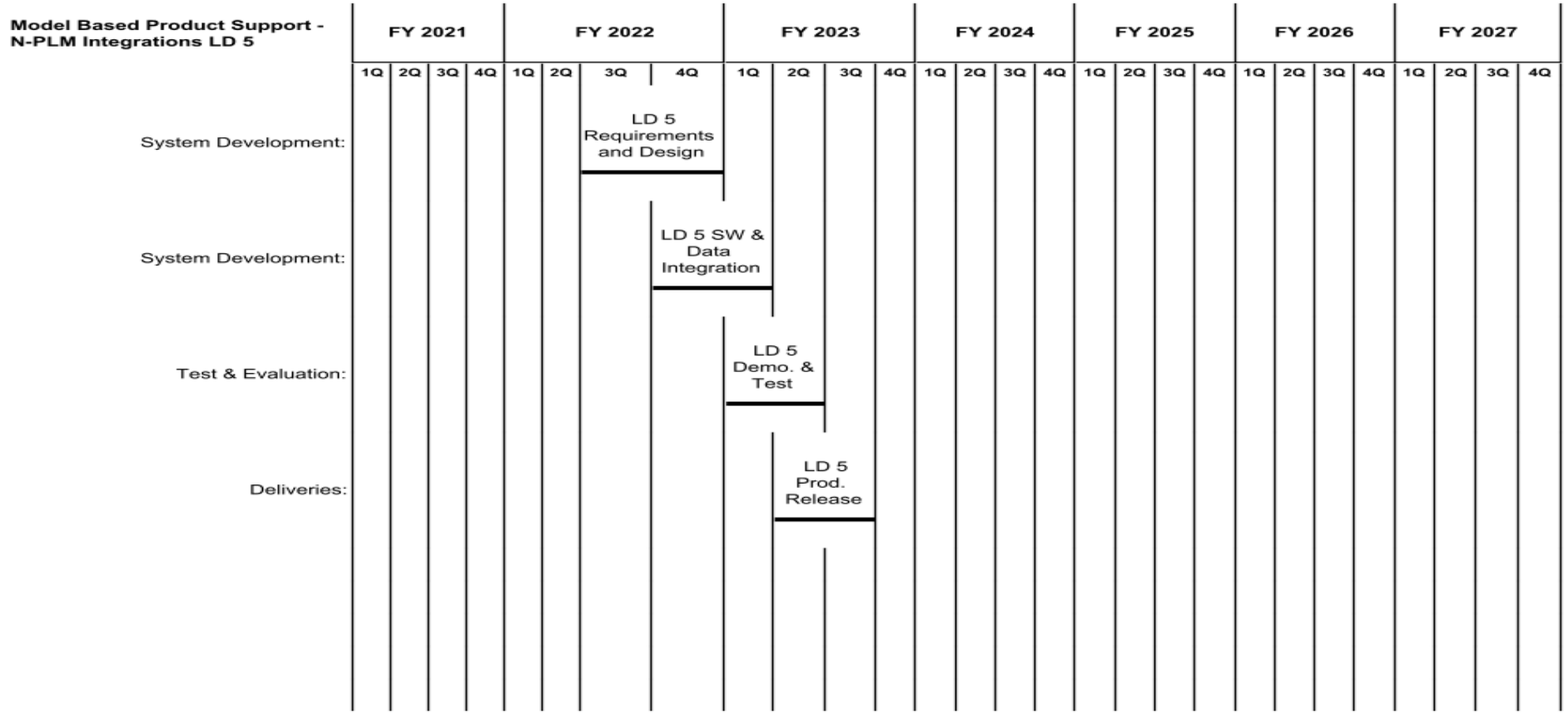
Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9999 / *Congressional Adds*



2023PB - 0605013N - 9999

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9999 / *Congressional Adds*



2023PB - 0605013N - 9999

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9999 / *Congressional Adds*

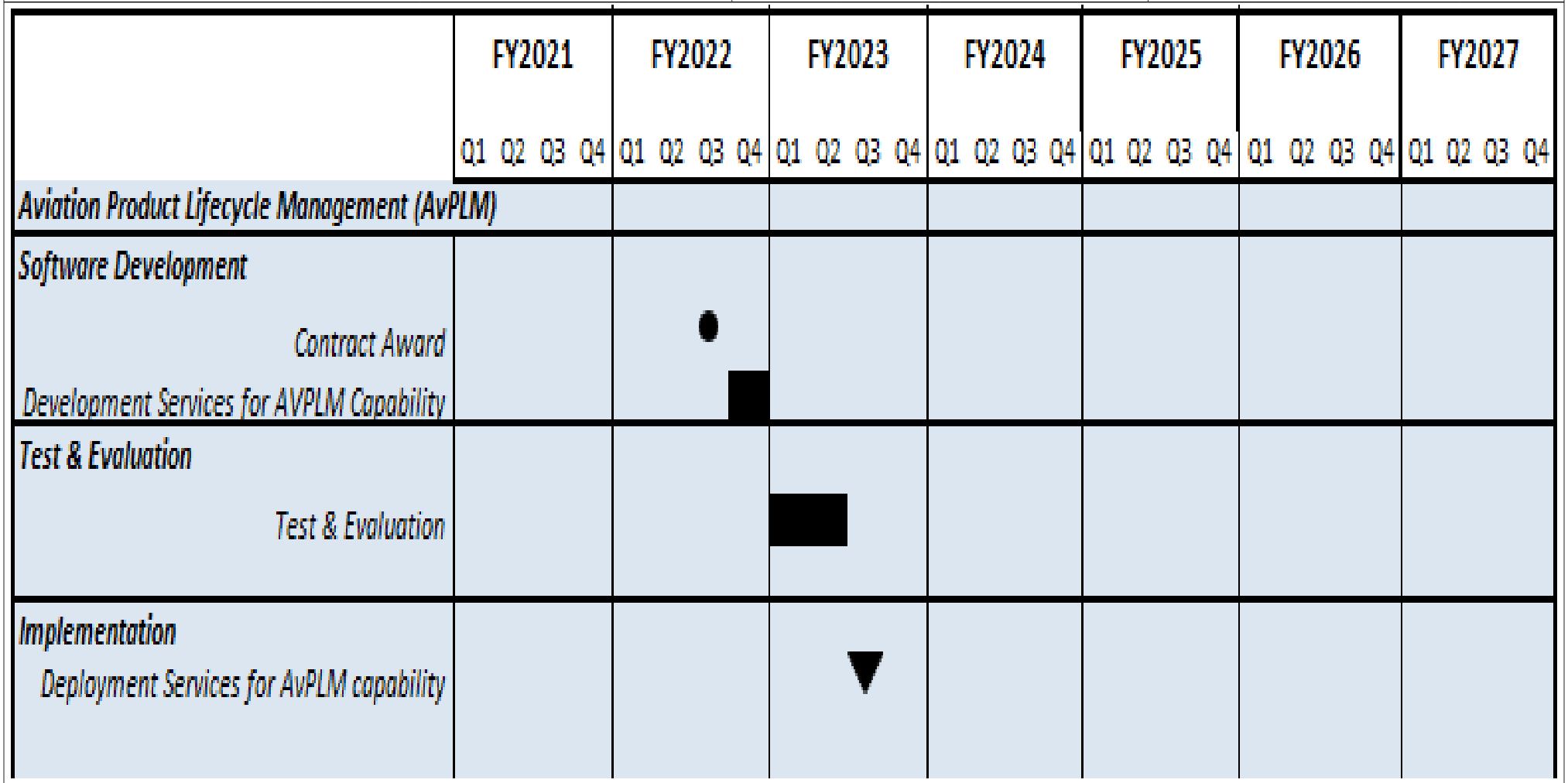


Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605013N / *Information Technology Development*	Project (Number/Name) 9999 / *Congressional Adds*

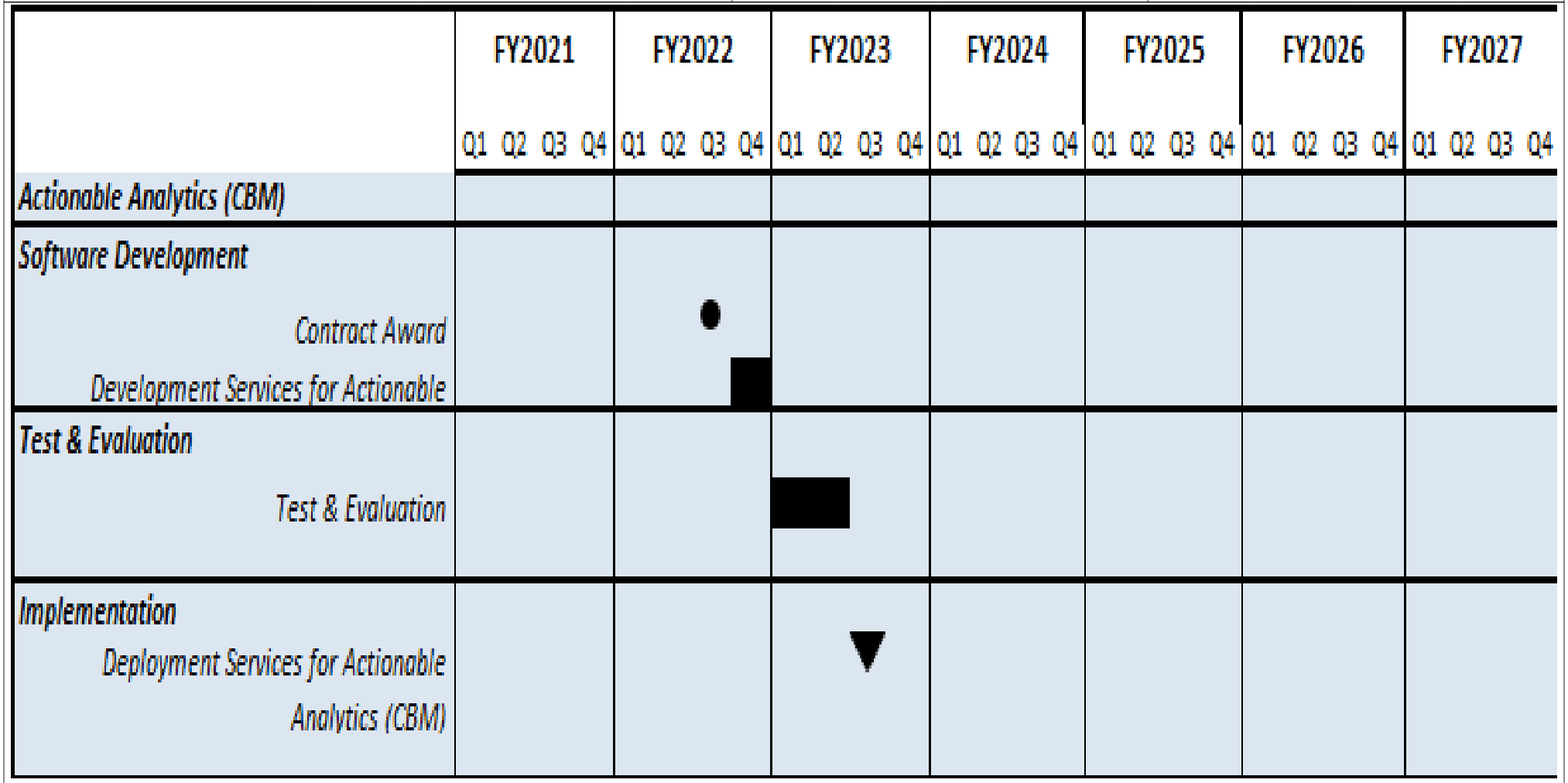


Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9999 / *Congressional Adds*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Condition Based Maintenance Plus (CBM+)				
Cyber Innovations in Classified Environments: Concept Exploration and Refinement	3	2021	2	2022
Cyber Innovations in Classified Environments: Engineering, Integration and Experimentation	2	2022	3	2022
Cyber Innovations in Classified Environments: Pilot Demonstrations	3	2022	4	2022
Cyber Solutions for Aviation Systems and Facilities: Cyber Resilient Operating System Prototyping and Demonstration	3	2021	4	2022
Cyber Solutions for Aviation Systems and Facilities: Risk Assessment tools/facilities, standards and security environments	3	2021	4	2022
Cyber Solutions for Aviation Systems and Facilities: Cyber RDT&E Toolsets	3	2021	4	2022
Cyber Solutions for Aviation Systems and Facilities: Cyber Planning and Response Center (CPRC), Forensics, Incident Response	1	2022	4	2022
Cyber Solutions for Aviation Systems and Facilities: Cyber Naval Aviation Red Team	1	2022	4	2022
Cyber Solutions for Aviation Systems and Facilities: Intelligence support to Defensive and Offensive Cyber	3	2021	4	2022
Model Based Product Support - N-PLM Integrations LD 5				
System Development:: LD 5 Requirements and Design	3	2022	4	2022
System Development:: Software and Data Integrations	4	2022	1	2023
Test & Evaluation:: LD 5 Demonstration and Testing	1	2023	2	2023
Deliveries:: LD 5 Production Release	2	2023	3	2023
Naval Aviation Product Life Cycle Management (AvPLM)				
Systems Development: Contract Award	3	2022	3	2022
Systems Development: Development Services for AvPLM capability	4	2022	4	2022

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605013N / *Information Technology Development*	**Project (Number/Name)** 9999 / *Congressional Adds*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Test and Evaluation: Testing services for capability in support of Aviation PLM (AvPLM)	1	2023	2	2023
Implementation: Deployment services for AvPLM capability	3	2023	3	2023
Aviation Innovative Cyber Solutions				
Systems Development: Contract Award	2	2022	3	2022
Test and Evaluation: Cyber Risk Assessments	2	2022	4	2023
Cyber Solutions in Classified Environments				
Test and Evaluation: Commercial off-the-shelf (COTS) innovative enhancements	2	2022	4	2023
Warfare Mission Analysis in Cyber Contested Environments				
Test and Evaluation: DON Modeling and Simulation (M&S) capabilities	2	2022	4	2023
Advanced shipyard technologies				
Systems Development: Contract Award	2	2022	4	2022
Test and Evaluation: Advanced shipyard technologies	2	2022	4	2023
Actionable Analytics for Reliable Maintenance				
Systems Development: Contract Award	3	2022	3	2022
Systems Development: Development Services for Actionable Analytics (CBM)	4	2022	4	2022
Test and Evaluation: Testing services for Actionable Analytics (CBM)	1	2023	2	2023
Implementation: Deployment services for Actionable Analytics (CBM)	3	2023	3	2023