Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Army												Date: March 2023
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604798A *I Brigade Analysis, Integration and Evaluation*							
COST ($ in Millions)	**Prior Years**	**FY 2022**	**FY 2023**	**FY 2024 Base**	**FY 2024 OCO**	**FY 2024 Total**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**	**Cost To Complete**	**Total Cost**
Total Program Element	-	20.976	21.086	20.828	-	20.828	21.303	21.011	21.115	21.317	0.000	147.636
DY7: *Army Systems Engineering, Architecture & Analysis*	-	20.976	21.086	20.828	-	20.828	21.303	21.011	21.115	21.317	0.000	147.636

A. Mission Description and Budget Item Justification

This program element is comprised of three projects: Army Systems Engineering, Architecture & Analysis; Army Integration Management & Coordination; and Emerging Technology Initiatives. The specific evaluation requirements will support Mission Command Network (MCN) 2020, the Force 2025 objectives, and emerging technology insertion.

Project DY7: Provides the Army's leadership and materiel developers with the necessary software modernization planning, System of Systems (SoS) engineering and analysis, technical risk analysis, architectural products, critical path analysis, cybersecurity and interoperability risk analysis and the associated mitigation planning for the Army's materiel portfolio. This project develops process, products, and policies that ensure a solid Army Systems Engineering construct across Army Program Executive and Management Offices. This includes efforts in support of Common Operating Environment (COE) governance, implementation of Continuous Integration/ Continuous Delivery (CI/CD) to modernize, and streamline and accelerate the software acquisition process, the Army Futures Command's emerging development of concepts, requirements generation, resource allocation, experimentation, acquisition, logistics, and technology components of the Army Future Force Modernization Enterprise (FFME). Focus areas includes the integration of key elements of a system into one overall system engineering construct and managing it through major system engineering activities to include implementing a CI/CD model for software to ensure the fielding of integrated capabilities meet the mission needs of the force against any potential adversaries. Key system engineering functions include, engineering and technical analysis, integrated System of Systems (SoS) architecture products, SoS risk analysis and mitigation planning to influence the Army's materiel portfolio. This project also includes the establishment of Army systems engineering policy and implementation standards, requirements decomposition and alignment to a CI/CD model, and resource and acquisition synchronization to address cross-portfolio issues. Key CI/CD functions include digital transformation functions include using a unified data reference architecture to enable decision dominance, analysis and mitigation planning to remove institutional barriers preventing CI/CD and delivering software that is flexible and secure by design using modern software practices. Key tasks are the development of integrated Architecture products; Engineering Analysis and Design; Portfolio Analysis; Systems Security Engineering process, interoperability assessments, independent technical risk assessments, Cybersecurity requirements analysis, compliance, Cyber policy assessments, and coordinates the ASA(ALT) community's Data activities including Data Steward and Functional Data Manager in Army Data Governance Forums.

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B. Program Change Summary ($ in Millions)	**FY 2022**	**FY 2023**	**FY 2024 Base**	**FY 2024 OCO**	**FY 2024 Total**
Previous President's Budget	21.423	21.228	21.464	-	21.464
Current President's Budget	20.976	21.086	20.828	-	20.828
Total Adjustments	-0.447	-0.142	-0.636	-	-0.636
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.447	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	-0.636	-	-0.636
• FFRDC Transfer	-	-0.142	-	-	-

Change Summary Explanation

Decreased funding to support higher Army priorities.

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army			Date: March 2023
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY7 / *Army Systems Engineering, Architecture & Analysis*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
DY7: *Army Systems Engineering, Architecture & Analysis*	-	20.976	21.086	20.828	-	20.828	21.303	21.011	21.115	21.317	0.000	147.636
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Synthesizing Systems Engineering Governance across the Program Executive Offices (PEOs) in support of the Assistant Secretary of the Army (Acquisition, Logistics and Technology)'s (ASA(ALT)) Mission.

The Army has been evolving the need for integrated Data, Engineering, and Software focused on the adjustment of modernization planning by implementing a CI/CD model, System of Systems (SoS) engineering and analysis, technical risk analysis, architectural products, critical path analysis, cybersecurity and interoperability risk analysis and the associated mitigation planning for the Army's materiel portfolio. This includes efforts in support of Common Operating Environment (COE) governance, support of digital transformation considerations in the area of digital engineering, data architecture and modern software practices, the integration of key elements of a system into one overall system engineering construct and managing it through major system engineering activities to ensure the fielding of integrated capabilities meet the mission needs of the force against any potential adversaries. Key system engineering functions include, engineering and technical analysis, integrated System of Systems (SoS) architecture products, SoS risk analysis and mitigation planning to influence the Army's materiel portfolio. This also includes the establishment of Army systems engineering policy and implementation standards, requirements decomposition and alignment to a CI/CD model, and resource and acquisition synchronization to address cross-portfolio issues. Key CI/CD functions include digital transformation functions include using a unified data reference architecture to enable decision dominance, analysis and mitigation planning to remove institutional barriers preventing CI/CD and delivering software that is flexible and secure by design using modern software practices. Key tasks are the development of integrated Architecture products; Engineering Analysis and Design; Portfolio Analysis; Systems Security Engineering process, interoperability assessments, independent technical risk assessments, Cybersecurity requirements analysis, Cyber policy assessments, and coordinates the ASA(ALT) community's Data activities including Data Steward and Functional Data Manager in Army Data Governance Forums.

As the Army undergoes digital transformation, data-centricity through data mesh becomes the backbone of communication on the battlefield; modernized software practices enables, accelerates, and streamlines all battlefield capabilities; and digital engineering ensures integration across products and ease of updates as requirements and technologies change. The Office of the Chief Systems Engineer (OCSE), newly known as the Deputy Assistant Secretary of the Army - Data, Engineering and Software DASA(DES) has begun to transform and will lead development of unified, government-owned data architectures that will govern acquisition of data centric capabilities to enable Commanders with the data they need, when they need it, enabling decision dominance and prevent vendor lock. These programs to implement modern software techniques, such as agile software development and Development, Security, and Operations (DevSecOps), resulting in better, faster, more cyber secure capability. ASA(ALT) will also lead Digital Engineering, a holistic approach to complex system design that leverages models, data, and modern software practices for Army acquisition programs to revamp how ASA(ALT) approaches software, data architecture, and product development.

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: March 2023
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This Project catalyzes, coordinates and integrates data, engineering, and modern software practices throughout a program's life cycle during the acquisition process. This Project will ensure data, engineering, and modern software practices is prioritized and properly implemented by ASA(ALT) Programs of Record. Implementation utilizes modern techniques and leverages open systems architectures concepts in order to ensure rapid, optimal, and secure product delivery into the hands of users.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Title: Systems Engineering Governance	-	5.818	6.108
FY 2023 Plans: tegration activities as required. CS and other large scale Army equipment fielding activities occur every year, with biannual baseline updates, and provide modernization upgrades to entire formations (e.g. CS fields to brigade elements) in a single event. These supporting architecture products enable the ASA(ALT) community to determine integrated Basis of Issue planning, subnet design, spectrum allocation, network initialization, logistics planning for fielding activity, and non-recurring engineering planning and design as part of the overall ASA(ALT) engineering design, integration and fielding of the Army equipment. OCSE will deliver and maintain a fully capable Architecture Development Kit (ADK) to the ASA(ALT) systems engineering and architecture community for use. Using a Model Based Systems Engineering (MBSE) data-driven approach to Digital Engineering (DE) inside the ADK Environment, architects capture system data in the system of systems integrated architecture to include systems' unique requirements, capabilities, performance, interfaces, standards, dependences, and data flows, within the context of their operational employment and provide visual representation of key systems from an operational, functional and network perspective. This modeling allows for requirements traceability, reporting, analysis, and visualization. The ADK will be expanded to include the breadth of architecture being developed by ASA(ALT), allow other Army organizations a means to access and utilize the latest systems architecture data created by system owners, and ingest other Army architectures for use in the environment. The expanded toolsets will provide a standardized virtual interface for improved usability and increased commonality so that all users will have the same access to libraries, lexicon, nomenclature and style guides. User will be able to develop architecture products useful for their own acquisition process while being able to access other system data to improve their understanding of interoperability OCSE will develop reference architecture products to support Capability Set (CS) 23 Integrated Tactical Network fielding, the CS 25 Integrated Tactical Network engineering design and fielding planning, and other fielding and inwith external systems. User requested and/or developed analysis tools will be shared and leveraged across the environment; suggestion and feedback paths will be implemented to continuously improve available tools and data. Data from all systems will be easily aggregated to develop and analyze system of systems architecture. The resultant fully integrated systems of systems model, maintained with up-to-date system data, will allow leadership to quickly answer 'what if' system of systems architecture questions and improve the efficiency of the Request for Information (RFI) processes. OCSE supports COE Systems Engineering Governance by continuing to host ASA(ALT) monthly governance forums to promote convergence of legacy combat systems towards a common software and hardware infrastructure, effective migration of Army sensing capabilities towards common data sharing interface standards, and alignment of enterprise capabilities with tactical level services. This includes continuing to host a bi-weekly ASA(ALT) Configuration Control Board to optimize SoS risk reduction			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
and preparatory actions prior to execution of Headquarters, Department of the Army (HQDA) G-6 independent Title 40 Army Interoperability Certification (AIC) test events. Secondly, OCSE will continue hosting the Standards IPT, DE IPT, Software Baseline IPT, and the Technical Advisory Board (TAB) to create and maintain ASA(ALT) SoS technical baseline artifacts in support of achieving COE Full Operational Capability (FOC) projected for 2025, as well as, continuing curation of the enterprise level Fielded Software Tracker Database, user requested functionality enhancements, systems administration, and help desk support. OCSE represents and coordinates Acquisition Integrated Data Engineering Governance for the ASA(ALT) community's in the area of data standards, priorities and activities in support of the Army's Data Plan Implementation. OSCE supports the ASA(ALT) Data Steward and performs the duties as the Functional Data Manager in Army Data Governance Forums including the Army Data Board (ADB), Army Analytics Board (AAB) and JADC2 Working Groups. In addition to representing the ASA(ALT) in Army data forums the OCSE is actively improving the ASA(ALT) data environment through the establishment of governance forums, standards, policies and implementation guides in order to facilitate rapid and relevant acquisition, logistics and technology decisions. Continuous maturation of Acquisition, Logistics and Technology Domain data ensures that data is available for successful integration and support of product and program life-cycle requirements, additive and advanced manufacturing, DE, product/technical data, intellectual property management, modular open systems approach and other DoD and Army initiatives. OCSE has developed a roadmap for the digital transformation of the ASA(ALT) and has begun executing against that plan through the execution of data analytic use cases which delivers incremental value to the ASA(ALT) and the Army at large. OCSE will continue to transform the ASA(ALT)'s business processes in support of its digital and data centric transformation. OCSE serves as the primary ASA(ALT) staff point of contact for acquisition concerns related to cyberspace through the Chief Cyber Acquisition Officer. OCSE leads ASA(ALT) response to major cyberspace incidents requiring ASA(ALT) Principal leader awareness. This includes but is not limited to coordinating with PEO staffs at all levels in order to analyze requirements/ orders, facilitate guidance, present findings/status, and interface with Army Cyber Command (ARCYBER) and/or other HQDA organizations. In accordance with AR 70-75, coordinate Army survivability policy and guidance in Army acquisition efforts related to cyberspace. Represent HQDA on boards and committees concerning materiel survivability matters related to cyberspace. Coordinate and lead an assessment of the ASA(ALT) portfolio to apply a rigorous, systems engineering approach to consider cyber resilience within the Acquisition trade-space (e.g. performance attribute). Identify systemic vulnerabilities and coordinate the development and implementation of enterprise solutions to mitigate those vulnerabilities. Develop and implement a risk-based process to assess the impact of vulnerabilities and assist with prioritization of funding for corrective actions for high-risk vulnerabilities. Coordinate with PEO Simulation, Training and Instrumentation (STRI) regarding the certification and implementation of cyber acquisition assessment teams in order to facilitate the reduction of risk across the ASA(ALT) portfolio. Coordinate with PEO staffs on the integration of traditional cybersecurity (risk management framework) and cyber resilience survivability. Coordinate the Cyber Acquisition Task Force to unify strategy and execution of cyber resilience efforts across Army.			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Synchronize ASA(ALT) cyber resilience strategies with OSD, United States Cyber Command (USCYBERCOM), and joint Service counterparts. OCSE has drafted and is staffing the Army Priority Vulnerability Management Directive as directed by the Under Secretary of the Army to establish an enduring program (non-acquisition) to identify and manage cyberspace risks and maximize the survivability of tactical-strategic kill chains and enabling systems, and improve Total Force Readiness. Synchronize and integrate priority cyberspace assessments across National Security Systems' lifecycles including the Strategic Cybersecurity Program, Cyberspace Operational Resilience Assessment - Platform (CORA-P), and cyberspace red team activities. OCSE leads the CORA-P effort as the supported organization to oversee the planning, execution, and reporting of all key tasks, in accordance with HQDA EXORD 123-20. CORA-P is an enduring effort to maintain the readiness, survivability, and cyber resilience of Army and Joint Forces, capabilities, and systems by identifying and mitigation cyberspace vulnerabilities in critical systems including relevant portions of the DOD Information Network. Present overall status to the Army Cyberspace Council. Plan/program funding over the Future Year Defense Program and oversee distributed execution by stakeholders. Update, maintain, and publish the Terms of Reference to all stakeholders. Coordinate all reporting to Army, Joint, and DOD forums. Ensure the on-time completion of Cyber Vulnerability Assessments and reports. Pilot emerging cyber resilience efforts (e.g. Cyber Readiness Framework, mitigation mapping techniques, resilience metrics) in future assessments and extrapolate findings and best practices across ASA(ALT) portfolio. ***FY 2024 Plans:*** This Project leads critical resources, tools, and solutions for ASA(ALT) to modernize software acquisition, lead digital engineering, provide oversight of Title X systems engineering functions, and implement software, data, cyber, and engineering governance to improve product delivery and cyber operational readiness for fielded systems. Additionally, has influence over program budgets for acquisition programs of record. General Officer (GO) / SES collaboration is required with key stakeholders across the Army, OSD, and other services, including the U.S. Army Training and Doctrine Command (TRADOC); U.S. Army Futures Command(AFC); Chief Information Officer (CIO); U.S. Army Test and Evaluation Command (ATEC); Deputy Chief of Staff, G-3; Deputy Chief of Staff, G-6; Deputy Chief of Staff, G-2; Army Cyber Command; and U.S. Army Program Executive Officers. The execution of these duties will ultimately change the way the Army delivers capabilities to Soldiers. This Project as full line authority from the Assistant Secretary of the Army (Acquisition, Logistics and Technology). This Project also provides for systems engineering efforts that enable the Army's leadership and materiel developers with the necessary modernization planning, System of Systems (SoS) engineering and analysis, technical risk analysis, architectural products, critical path analysis, cybersecurity and interoperability risk analysis and the associated mitigation planning for the Army's materiel portfolio. This Project develops process, products, and policies that ensure a solid Army Systems Engineering construct across Army Program Executive and Management Offices.			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
This Project includes specific efforts in support of the Army's Data plan that has lines of effort working towards the Joint All Domain Command and Control (JADC2) concept via Data, Systems Engineering, and Software governance, emerging Multi-Domain Operations (MDO) concepts requirements generation, resource allocation, experimentation, acquisition, logistics, and technology components of the Army's Modernization Strategy. Focus areas includes the integration of key elements of a system into one overall system engineering construct and managing it through major system engineering activities to ensure the fielding of integrated capabilities meet the mission needs of the force against any potential adversaries. Key system engineering functions include, engineering and technical risk analysis, establishment of Army Data, systems engineering, and software policy and implementation standards, requirements decomposition and alignment, and resource and acquisition synchronization to address cross-portfolio issues. Key tasks are t to enable the adoption of modern software practices (i.e. DevSecOps, Agile software development...), perform Portfolio Analysis and Software support; execute Systems Security Engineering processes, perform interoperability assessments, perform independent risk assessments, perform Cybersecurity requirements analysis, compliance, Cyber policy assessments, and coordinates the ASA(ALT) community's Data activities including Data Steward and Functional Data Manager in Army Data Governance Forums. The effort includes costs for labor (Government and contractor), support services, travel, training, supplies, facilities, and Information Technology (IT) support for the DASA(DES) Data, Engineering, and Software. This Project also includes support to other Department of Defense (DOD) and international agencies for joint programs and collaboration effort. Major Responsibilities This Project is responsible for ensuring that digital transformation program support considerations, , including digital engineering, data architecture and modern software practices, are integrated into all Army acquisition programs throughout their lifecycle. Specifically, areas that fall fall under this responsibility for the following areas of concentration. Data Architecture Development, Implementation and Integration - Ensure programs develop data architectures, and that they integrate resulting in a holistic data solution within and across tactical and enterprise domains. This data architecture will govern acquisition of data-centric capabilities and reduce the current complexity. It will flatten the Army's data architecture across its echelons for effective and efficient data-driven decision-making as envisioned by Joint All Domain Command and Control (JADC2) and the Army's multi-domain operations (MDO) concept and supporting doctrine.Software Development Acquisition Support and Oversight - Ensure programs implement agile software development and DevSecOps to deliver better capability faster. These modern practices will increase speed, quality, and security of software, while ensuring stakeholder transparency and involvement throughout the development process to deliver the best capability incrementally with rapid feedback from the field. ASA(ALT) is leading the shift to Agile and DevSecOps across the PEOs, as well as, coordinating across the operational, test, and requirements communities to drive culture changes to achieve the goal of Agile and DevSecOps by influencing organizational changes, transformation to a digital workforce, a shift to soldier-centricity in the requirements & development processes, reimagining of			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
current testing & cybersecurity constructs, updating contracting & funding strategies and focus on the intersection of software and data via data centricity. Digital Engineering Policy and Implementation Guidance - Ensure programs implement sound digital engineering practices that enable sharing of data across the Acquisition enterprise. This will be achieved by establishing foundational capabilities and support mechanisms for programs who need a starting point, building on foundations with uniform guidance about how to perform a model-based acquisition, and reaching a state where all our programs are implementing a model-based acquisition and we're assessing program performance using the modeling environment. Independent Technical Risk Assessments (ITRA) - Conduct ITRAs for Major Defense Acquisition Programs (MDAPs). Modular Open Systems Approach (MOSA). Ensure MOSA is implemented in Army Acquisition programs to maximize interoperability, simplify technology refresh, and eliminate vendor lock. Systems Engineering and Program Support - Advise programs on statutory and regulatory requirements in support of acquisition milestone decisions. Cyber Policy and Oversight - Ensure threat-informed cyber hardening of programs to prevent compromise of critical, sensitive data. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Reallocation of available labor category resources.			
Title: Engineering Support & Services ***FY 2023 Plans:*** OCSE leads the Army's development of policy and best practices to ensure systems engineering rigor in Army Acquisition. OCSE is the primary advisor to the Chief Systems Engineer and Army Acquisition Executive (AAE) regarding the sufficiency of systems engineering rigor in programs. The OCSE team collaborates with the Army's systems engineering community to identify systemic systems engineering challenges and issues and their solutions, as well as identifying and sharing best practices. OCSE leads the immediate Army response to National Defense Authorization Act (NDAA) statutory requirements that involve systems engineering, as well as identifying and facilitating the best means to institutionalize those requirements. Additionally, OCSE collaborates with the OSD, Industry and the Joint community in developing synchronized approaches to NDAA Systems Engineering related statutes.	-	6.265	6.497

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
In order to promote program success, OCSE will continue to assist programs in the identification and mitigation of risk (i.e. Independent Technical Risk Assessment (ITRA), Preliminary and Critical Design Review (PDR/CDR) sufficiency assessments, Systems Engineering Plan (SEP), Life-Cycle Sustainment Plan (LCSP), and Systems Engineering Technical Reviews (SETR), etc.) and develop processes to support the necessary rigor and consistency across the Army, in support of any/all key milestone events. For Acquisition Category (ACAT) 1B/1C programs the Army will lead these efforts, and support the Deputy Under Secretary of Defense for Research and Engineering (USD(R&E)) for ACAT 1D programs. OCSE provides guidance and support to programs for development of systems engineering documentation required for milestone decisions and certification. Serves as the Army level concurrence authority on System Engineering Plans and provides systems engineering expertise for Program Protection Plans (PPPs) for all Army Major Defense Acquisition Programs (MDAPs). OCSE will also provide the AAE with an assessment of the MOSA implementation for ACAT 1B/1C programs and will review and recommend approval for the PEO's approach to implementing MOSA across their responsible portfolio. OCSE will serve as the Army focal point for matters of hardware and software assurance, microelectronics, planning and countermeasures, and systems engineering focal point for program protection, anti-tamper, and PPPs. OCSE is the Army representative for the FY 2014 NDAA Section 937 Congressional requirement to stand up a Joint Federated Assurance Center (JFAC) to develop work plans, manage funding, track progress and report regular status to Army Leadership and OSD Leadership. In addition, also maintains direct collaboration and communication with Development Commands (DEVCOMs), Army Research Labs, and specifically the Software, Hardware and Cyber Subject Matter Experts and Communities of Practice, to define, federate, maintain and evolve, Army Cyber, System Security Engineering, and allow access to available Hardware/ Software Assurance (HwA/SwA) capabilities to meet today's threats and emerging threats. OCSE provides systems engineering expertise, oversight, review, and development assistance for PPPs to determine/review risks/identify vulnerabilities associated with Security and assess the planned countermeasures to mitigate issues. OCSE provides advice and experience to influence system design considerations in support of developing effective and resilient program protection strategies. Conducts client advocacy and education forums (Road Show presentations/Army Systems Engineering Forums) amongst Army PEOs/Chief Systems Engineers and other agencies and joint service stakeholders, to promulgate best practices to the acquisition community. Coordinates as an executive agent on matters of Anti-Tamper with program personnel, systems security engineers and service providers. OCSE serves as the primary responsibility for Software Assurance and Anti-Tamper. Provides alternate assurance options for critical DoD unique parts as part of the US Microelectronic Strategy. Provides advice, influence, and support to the Army's Supply Chain Risk Management (SCRM) forums and Integrated Product Team (IPT), leveraging tools and expertise from the HwA and SwA communities. Advance the Army's capability to perform hardware analysis of critical components and transition to a new microelectronics trust model that leverages commercial state of the art practices. Provide systems engineering advice on Critical Intelligence Parameter Breach recommendations as described in Army regulations. In accordance with (IAW) FY 2017 NDAA Sec 807 Responsible for the conduct and execution of Post-PDR/CDR and ITRA for all Army ACAT 1/2 programs where			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
the AAE serves as the Milestone Decision Authority (MDA). The reviews will provide recommendations on Technical Risk and PDR/CDR sufficiency, and both will be included in the MDA package for the Milestone Review, approval, and certification. A key element of OCSE support and services will be advancing the state of practice of DE across the ASA(ALT) community. This work will also seek to streamline communications between Government and Industry by identification of technical data and emphasis of appropriate implementation of technical data rights. Through the implementation of DE, OCSE will work with the PMs to institutionalize modern engineering processes and integrate those processes through the engineering data they produce in order to establish and maintain traceability from the activities that drive system concept development through system acquisition, fielding, and sustainment to the decision to divest. The Army's DE implementation will establish a workforce equipped with the necessary skills and infrastructure to achieve this goal. To further the Army's modernization efforts, OCSE synchronizes the Army's Modeling and Simulation (M&S) Strategy with OSD's DE Strategy to focus current and emerging efforts on the efficient development and use of M&S and MBSE capabilities in order to advance the Army's system development efforts. OCSE will continue in the development of MOSA policy and implementation guidance, in accordance with NDAA FY 2017 2466a/ b/c, that leads to the certification of MOSA in MDAPs. Other responsibilities include confirming that Army programs proceeding to Milestone B have incorporated clearly defined major subsystem interfaces between the major system platform and major system components, between major system components, and between major system platforms, and that these major system interfaces are consistent with the widely supported and consensus-based standards. OCSE will continue primary responsibility for the overall Reliability, Availability, and Maintainability (RAM) program pertaining to materiel. Leads the assessment of RAM efforts of Army programs of record through a cross functional IPT that emphasizes lessons learned and best practices for RAM. Assist programs in the research for root causes of reliability issues and provide detailed assessment along with recommendation to senior leadership. OCSE will supervise the major RAM program elements to ensure that operationally focused, achievable, affordable, and testable RAM requirements are included in the requirements documentation and the Department of the Army (DA) decision-making process. Assist in Army staff evaluation of proposed changes to operational systems' RAM characteristics in product improvement programs. OCSE will serve as the ASA(ALT) staff lead for JADC2 / Multi Partner Environment (MPE) Technical Standards by providing ASA(ALT) technical representation on Joint Staff J6 and Army JADC2 technical governance forums. Additionally, OCSE will continue ASA(ALT) technical representation on the DoD Chief Information Officer (CIO) Technical Working Groups (TWGs) and Joint Enterprise Standards Committee (JESC) and conduct Service level review of Interoperability Standards Technical Packages (ITSP) in support of Change Requests (CRs) to the DoD Information Technology Standards Repository (DISR) baseline IAW DoDI 8310.01.			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
OCSE will continue to provide ASA(ALT) technical representation for Army pre-ratification review and staffing of American, British, Canadian, Australian, and New Zealand (ABCANZ) Technical Statement of Requirements (TSOR) in support of the Army Interoperability Campaign Plan and Mission Partner Environment (MPE) Concept of Operations (CONOPS). OCSE will serve as the lead to ensure ASA(ALT) complies with statutory and regulatory guidance, focused on increasing the use of commercial and non-governmental standards and specifications in Army acquisition programs. Additionally, the effort includes developing support tools and publishing a common desktop reference for ASA(ALT) PMs and Chief Engineers detailing statutory and regulatory mandates, best practices, tools, and training. OCSE will continue to provide overarching governance, promulgation, and integration of the Positioning, Navigation, and Timing (PNT) Reference Architecture (RA) with the COE technical baseline, review PM compliance strategies for technical risks, and provide endorsement recommendations to the ASA(ALT) Chief Systems Engineer (CSE). OCSE serves as the Program Information System Security Manager (ISSM) for ASA(ALT) HQ. OCSE supports the CSE as Authorizing Official (AO) for ASA(ALT) HQ in order to establish and monitor the HQ cybersecurity program that includes cybersecurity objectives and policies, cybersecurity personnel, and cybersecurity processes and procedures. Function as the primary cybersecurity technical advisor to the AO and managerial lead for RMF throughout the command. Ensure cybersecurity-related events or configuration changes that may impact authorizations or security postures are formally reported to the AO and other stakeholders such as information owners and AOs of interconnected systems. Monitor compliance with cybersecurity policies, as appropriate, and review the results of such monitoring. ***FY 2024 Plans:*** This Project supports the ASA(ALT) Data Steward and performs the duties as the Functional Data Manager in Army Data Environment Governance Forums including the Army Data Board (ADB), Army Analytics Board (AAB) and JADC2 Working Groups. In addition to representing the ASA(ALT) in Army data forums improving the ASA(ALT) data environment through the establishment of governance forums, standards, policies and implementation guides in order to facilitate rapid and relevant acquisition, logistics and technology decisions. Continuous maturation of Acquisition, Logistics and Technology Domain data ensures that data is available for successful integration and support of product and program life-cycle requirements, additive and advanced manufacturing, DE, product/technical data, intellectual property management, modular open systems approach and other DoD and Army initiatives. This Project will advance the state of practice of DE across the ASA(ALT) community. This work will also seek to streamline communications between Government and Industry by identification of technical data and emphasis of appropriate implementation			

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: March 2023
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
of technical data rights. Through the implementation of DE, coordination with Program Office are underway to institutionalize modern engineering processes and integrate those processes through the engineering data they produce in order to establish and maintain traceability from the activities that drive system concept development through system acquisition, fielding, and sustainment to the decision to divest. The Army's DE implementation will establish a workforce equipped with the necessary skills and infrastructure to achieve this goal. To further the Army's modernization efforts, synchronization with the Army's Modeling and Simulation (M&S) Strategy with OSD's DE Strategy will focus current and emerging efforts on the efficient development and use of M&S and MBSE capabilities in order to advance the Army's system development efforts. This Project has developed a roadmap for the digital transformation of the ASA(ALT) and has begun executing against that plan through the execution of data analytic use cases which delivers incremental value to the ASA(ALT) and the Army at large. To enable digital transformation, this project will develop playbooks for ASA(ALT) programs to leverage as they digitally transform. These playbooks will provide practical examples of how to plan, execute, monitor, and report on programs using modern practices to be applied to existing and future program. This will lower the barrier to entry for those whom are not experienced in modern practices. This project will provide and execute a framework to effectivity digitally transform programs and provide expertise to help with the transformation in the areas of requirements, contracting, testing, cybersecurity and fielding & operations. THIS PROJECT will continue to transform the ASA(ALT)'s business processes in support of its digital and data centric transformation. This Project will enable the Acquisition lead for the implementation of Digital Engineering. ASA (ALT) has developed a Vision for DE and initiated the development and publication of a DE Policy and DE Implementation Guidance that is aligned with the DoD DE Strategy. This Project will enable representation Army Acquisition in OSD DE forums and is the point of contact within the Army for the governance and processes required for the execution of NDAA, DoD, and Army mandates that involve systems and DE. Army collaboration with OSD for systems and DE issues and identifies and advocates for Army equities during the establishment and implementation of DoD policy involving systems engineering. This Project will execute the responsibility for leading a Digital Thread Operational Integrated Product Team (OIPT) with members from across the Army in order to develop the requirement for the Digital Thread in support of the Army modernization. The Digital Thread is a framework that will provide a means to integrate digital artifacts across organizational boundaries and establishes traceability from initial concept through a fielded and supported piece of equipment and system. This Project enables representation by the Acquisition Community at the Army M&S General Officer Steering Committee (GOSC), Council of Colonels (CoC), and other M&S forums. THIS PROJECT provides guidance to PEOs and PMs to plan for the integrated use of M&S throughout the acquisition lifecycle and coordinates M&S activities within the Army Acquisition Community.			
FY 2023 to FY 2024 Increase/Decrease Statement:			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Reallocation of available labor category resources.			
Title: Strategic Engineering Guidance	-	7.810	8.223
FY 2023 Plans: ies, guidelines, practices, and toolsets. OCSE's engagement in the Mission Engineering CoP will encourage the use of Mission Engineering within the Army community. This will be accomplished by updating the Mission Engineering Guide, maturing the Mission Engineering state of practice, and communicating governance to the Army engineering community. OCSE will support responsible organizations within the Army and foster Mission Engineering expertise and workforce development. Provide continued Mission Engineering, JADC2, and MDO analysis as it pertains to system development and ASA(ALT) equities. Continue to analyze JADC2 impact on Army modernization strategy and the Army's role in MDO supporting ASA(ALT) with quick turn, independent, first-order engineering analysis to support leadership decision making to enable the Army Modernization Strategy. Continue to support Project Convergence 23 and 24 planning, design, and execution, JADC2 planning and design, DE efforts at the Office of the Secretary of Defense, (OSD), Army, and ASA(ALT) levels, and Army architecture governance efforts.OSCE will serve as the Army focal in the Office of the Under Secretary of Defense for Research and Engineering (OUSD (R&E)) Mission Engineering Community of Practice (CoP) to facilitate the development of recommendations, polic OCSE will continue to expand Critical Criteria and Convergence Learning (C3L) tool use at the PEO and PM level. C3L is designed to enhance system of systems engineering rigor for MDO designated capabilities. The C3L provides a set of criteria categories that, when provided with some basic inputs on system type, intended purpose, and intended environment, provide feedback to the system owner in terms of considerations needed or identify gaps not address that are required to support an MDO scenario. These considerations can also be leveraged to begin to determine if a system meets the overmatch, Operational Environment 2040, and procurement outcomes outlined by the Vice Chief of Staff of the Army (VCSA). The tool is designed to be tailorable, flexible, reusable, and intuitive for a user to navigate with the possibility for automated aspects. Further integrate C3L into the ADK tool set such that system owners leveraging the ADK to build out their system architecture can also leverage an automated C3L tool to provide a cursory look at their system's integration within an MDO construct. As the National Defense Strategy and Army Senior Leadership have emphasized increased speed of delivery of capabilities to the Warfighter, OCSE works with PEOs/Program Managers (PMs), along with other Army Commands on enabling processes and tools in order to accelerate the Army's acquisition process, from requirements development through delivery of capability to the field and rapid technology insertion or upgrades. OCSE will continue to implement and assess the Modular Open System Approaches (MOSA) by refining and developing implementation guidance and supporting PM development of MOSA architectures. Elements will include identifying and prioritizing key system attributes into functional, modular components that provide the greatest operational effects on the battlefield, and support the fielding of a MDO-capable force by 2028 and an MDO-ready force by 2035. These efforts will encompass the development planning process to rapidly identify and refine requirements			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
and speed development from concept to solution. OCSE will continue to assist the Army by assessing whether emerging capabilities should be transitioned into programs of record, by means of a Systems Engineering Assessment Review (SEAR) and/or ITRA process. Further support is provided by the OCSE role in facilitating the rapid integration of emerging technology through MOSA. Amplify the impact and benefits of MOSA with the use of Common Modular Open Architectures (CMOA) that enable faster, more efficient capability upgrades and technology insertion. OCSE hosts the Product Data and Engineering Working Group (PEWG) which provides a collaboration forum focused on product and technical data with representatives from across the Army who perform activities throughout the system development and acquisition lifecycle. This includes product and technical data SMEs that collaborate and synchronize responses to questions related to the technical and product data needs that support modernization requirements across these organizations. PEWG members collaborate to work through details of strategic Army initiatives, and facilitate the transition of technical data throughout the product development lifecycle. OCSE is the Army's lead for the implementation of DE. OCSE has developed a Vision for DE and initiated the development and publication of a DE Policy and DE Implementation Guidance that is aligned with the DoD DE Strategy. The OCSE represents the Army in OSD DE forums and is the point of contact within the Army for the governance and processes required for the execution of NDAA, DoD, and Army mandates that involve systems and DE. OCSE leads Army collaboration with OSD for systems and DE issues, and identifies and advocates for Army equities during the establishment and implementation of DoD policy involving systems engineering. OCSE has been assigned the responsibility for leading a Digital Thread Operational Integrated Product Team (OIPT) with members from across the Army in order to develop the requirement for the Digital Thread in support of the Army modernization. The Digital Thread is a framework that will provide a means to integrate digital artifacts across organizational boundaries and establishes traceability from initial concept through a fielded and supported piece of equipment and system. OCSE is the lead for the Acquisition Community at the Army M&S General Officer Steering Committee (GOSC), Council of Colonels (CoC), and other M&S forums. OCSE provides guidance to PEOs and PMs to plan for the integrated use of M&S throughout the acquisition lifecycle and coordinates M&S activities within the Army Acquisition Community. OCSE provides notifications and updates to the ASA(ALT) Deputy Assistant Secretaries of the Army (DASAs) in ASA(ALT) and PEO CIOs points of contact to alert them of the proposed requirements and migration schedule to the Microsoft (MS) Teams Impact Level 5 (IL5) environment. OCSE will continue to update the ASA(ALT) portion of the Army 365 Migration Hub in order to better coordinate the required migration tasks.			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
OCSE will establish strategic engineering guidance for cyberspace by developing and overseeing the implementation of technical processes and tools. Develop objective architecture (e.g. data structures, warehouses, interactions, products) and drive implementation of Information Security Architectures from a SoS perspective. As needed, coordinate engineering change request to federate existing Army business processes and systems. Synchronize with Army policy/strategy and with mission system owners. As needed, conduct engineering-assessments of crosscutting cyber focused architectures, solutions, and capabilities proposed by Programs of Record, Cross Functional Teams, and Rapid Capabilities and Critical Technologies Office. Increase engineering rigor though policies, processes, tools, and technical oversight across systems and systems-of-systems in order to maximize the cyberspace survivability of the Army Acquisition portfolio. Define, publish, and revise as needed a standardized Cyber Acquisition Discipline Artifact for PMs to demonstrate the repeatable implementation of cyber survivability attributes during decision point reviews. Develop and maintain an Implementation Guidebook to improve awareness and consistency of related planning and execution. Support the AAE in reviewing the Cyber Acquisition Discipline Implementation Assessment during decision reviews for all Acquisition Category 1 and 2 programs, as well as MDAs/DAs for other systems as requested. Lead the development of cyberspace contract language requirements and templates, and publish in policy for the acquisition workforce. IAW AR-70-75, represent HQDA on boards and committees concerning materiel survivability matters related to cyberspace resilience. Serve as HQDA lead responsible for tracking and monitoring cyberspace remediation (find-fix-verify) as recommended by the Department of Defense Office of Inspector General (DODIG). Provide engineering governance for emerging cyberspace-related capabilities and advances to include artificial intelligence, cloud-computing governance, Development, Security and Operations (DevSecOps), supply chain risk management, zero trust, etc. Ensure ASA(ALT)'s cyber-related roadmaps align with Army/DoD CIO regarding data, cloud migration, data centers, etc. Analyze requirements and opportunities, and publish ASA(ALT) internal Technical Bulletins and other information papers to inform PMs. Coordinate with capability developers to establish systems engineering criteria in order to ensure new requirements documents address cyber resilience. Coordinate with Army Materiel Command to establish policy and processes that shall maintain cybersecurity and survivability for programs transitioning to sustainment. Lead, in coordination with HQDA G-3/5/7, the establishment of the materiel component of the cyber readiness framework as an interface between systems and operations, which requires authoritative and accessible data from the acquisition and sustainment communities to reduce operational risk. OCSE will lead, plan, integrate and synchronize information cybersecurity efforts across ASA(ALT) including PEOs and headquarters. Identify crosscutting issues and opportunities from across the PEOs requiring ASA(ALT) senior leader attention. Represent ASA(ALT) cybersecurity equities in external stakeholder forums (e.g. Army Cyberspace Council, CIO Executive Board). Review and shape all cyberspace related strategies, policies, and orders affecting ASA(ALT) from OSD, HQDA, and ARCYBER; and elevate issues to the Chief Systems Engineer as needed. Synchronize architectures between enterprise and acquisition systems. Support critical modernization of unsupported software for secure operations. Assist and respond with data call requests, synchronization efforts, and IPRs with DoD CIO and the HQDA G-6, ARCYBER, and the VCSA. Leverage cybersecurity policy as a technology enabler. Fulfill cybersecurity functions mandated by public law, federal directives, and			

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: March 2023
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
DoD/Army policy. Coordinate, optimize, and monitor Risk Management Framework (RMF) execution among PEOs, assist with common issues requiring senior leader attention, and liaise with CIO and the HQDA G-6. Ensure appropriate transfer of Enterprise Mission Assurance Support Service (eMASS) records for systems that transitioned to sustainment. Serve as approval authority for ASA(ALT) HQ eMASS accounts and Army Training & Certification Tracking System (ATCTS) records, as well as for reviewing and approving system transfers to sustainment in the Army Program Management System (APMS). As the Army implements the Army's People Strategy, OCSE supports the functional lead for Engineering by identifying skills gaps and recommending the needed training. OCSE will also promotes workforce development efforts to improve the level of systems engineering competency through credentials that provide focused enhanced skills in DE, Cyber, and Data engineering. This will include engineering support to OSD and the Army to oversee the growth of civilian talent to support ASA(ALT) Systems Engineering requirements. This includes recommending improvements in Training, Education, Rotational Assignments, and Mentoring for a Systems Engineering (SE) work force across the Army. OCSE will support ASA(ALT) in the development of the Human Capital Strategic Plan (HCSP) and refinement of the System Engineering Functions with OSD. OCSE will serve as the ASA(ALT) lead for System Security Engineering (SSE). Army requires a professional and effective SSE workforce, which is separate from information system security management (ISSM) or network defense functions. SSE contributes to a broad-based, holistic security perspective and focus within the systems engineering (SE) discipline. SSE ensures stakeholder protection needs and security concerns are properly identified and addressed in all engineering stages of the system life cycle. Coordinate with OUSD to define the DoD body of knowledge for SSE. Ensure duties align with prescribed training, experience, and certification. Coordinate appointment and implementation, and facilitate collaboration across PEOs through meetings and publications. ***FY 2024 Plans:*** This Project will continue in the development of MOSA policy and implementation guidance, in accordance with NDAA FY 2017 2466a/ b/c, that leads to the certification of MOSA in MDAPs. Other responsibilities include confirming that Army programs proceeding to Milestone B have incorporated clearly defined major subsystem interfaces between the major system platform and major system components, between major system components, and between major system platforms, and that these major system interfaces are consistent with the widely supported and consensus-based standards. This Project will continue to provide overarching governance, promulgation, and integration of the programs of record through a cross functional IPT that emphasizes lessons learned and best practices for RAM. Assist programs in the research for root causes of reliability issues and provide detailed assessment along with recommendation to senior leadership. This Project will supervise the major RAM program elements to ensure that operationally focused, achievable, affordable, and testable RAM requirements are included in the requirements documentation and the Department of the Army (DA) decision-making process. Assist in Army staff evaluation of proposed changes to operational systems' RAM characteristics in product improvement programs.			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
As the Army implements the Army's People Strategy, this Project supports the functional lead for Engineering by identifying skills gaps and recommending the needed training. This Project will also promote workforce development efforts to improve the level of systems engineering competency through credentials that provide focused enhanced skills in Digital, Data and Systems engineering, modern agile software development, and Cybersecurity, by developing persona based curriculum that will focus on providing PEOs the ability to effectively manage digitally transformed programs.This Project will include engineering support to OSD and the Army to oversee the growth of civilian talent to support ASA(ALT) Systems Engineering requirements. This includes recommending improvements in Training, Education, Rotational Assignments, and Mentoring for a Systems Engineering (SE) work force across the Army. This office will support ASA(ALT) in the development of the Human Capital Strategic Plan (HCSP) and refinement of the System Engineering Functions with OSD. This Project will lead, plan, integrate and synchronize information cybersecurity efforts across ASA(ALT) including PEOs and headquarters. Identify crosscutting issues and opportunities from across the PEOs requiring ASA(ALT) senior leader attention. Represent ASA(ALT) cybersecurity equities in external stakeholder forums (e.g. Army Cyberspace Council, CIO Executive Board). Review and shape all cyberspace related strategies, policies, and orders affecting ASA(ALT) from OSD, HQDA, and ARCYBER; and elevate issues to the Chief Systems Engineer as needed. Synchronize architectures between enterprise and acquisition systems. Support critical modernization of unsupported software for secure operations. Assist and respond with data call requests, synchronization efforts, and IPRs with DoD CIO and the HQDA G-6, ARCYBER, and the VCSA. Leverage cybersecurity policy as a technology enabler. Fulfill cybersecurity functions mandated by public law, federal directives, and DoD/Army policy. Coordinate, optimize, and monitor Risk Management Framework (RMF) execution among PEOs, assist with common issues requiring senior leader attention, and liaise with CIO and the HQDA G-6. Ensure appropriate transfer of Enterprise Mission Assurance Support Service (eMASS) records for systems that transitioned to sustainment. Serve as approval authority for ASA(ALT) HQ eMASS accounts and Army Training & Certification Tracking System (ATCTS) records, as well as for reviewing and approving system transfers to sustainment in the Army Program Management System (APMS). ASA(ALT) staff point of contact for acquisition concerns related to cyberspace through the Chief Cyber Acquisition Officer. This Project provides ASA(ALT) response to major cyberspace incidents requiring ASA(ALT) Principal leader awareness. This includes but is not limited to coordinating with PEO staffs at all levels in order to analyze requirements/orders, facilitate guidance, present findings/status, and interface with Army Cyber Command (ARCYBER) and/or other HQDA organizations. In accordance with AR 70-75, coordinate Army survivability policy and guidance in Army acquisition efforts related to cyberspace. Represent HQDA on boards and committees concerning materiel survivability matters related to cyberspace. Coordinate and lead an assessment of the ASA(ALT) portfolio to apply a rigorous, systems engineering approach to consider cyber resilience within the Acquisition trade-space (e.g. performance attribute). Identify systemic vulnerabilities and coordinate the development and implementation			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
of enterprise solutions to mitigate those vulnerabilities. Develop and implement a risk-based process to assess the impact of vulnerabilities and assist with prioritization of funding for corrective actions for high risk vulnerabilities. Coordinate with PEO Simulation, Training and Instrumentation (STRI) regarding the certification and implementation of cyber acquisition assessment teams in order to facilitate the reduction of risk across the ASA(ALT) portfolio. Coordinate with PEO staffs on the integration of traditional cybersecurity (risk management framework) and cyber resilience survivability. Coordinate the Cyber Acquisition Task Force to unify strategy and execution of cyber resilience efforts across Army. Synchronize ASA(ALT) cyber resilience strategies with OSD, United States Cyber Command (USCYBERCOM), and joint Service counterparts. NDAA Sec 807 Responsible for the conduct and execution of Post-PDR/CDR and ITRA for all Army ACAT 1/2 programs where the AAE serves as the Milestone Decision Authority (MDA). The reviews will provide recommendations on Technical Risk and PDR/CDR sufficiency, and both will be included in the MDA package for the Milestone Review, approval, and certification. This Project will establish strategic engineering guidance for cyberspace by developing and overseeing the implementation of technical processes and tools. Develop objective architecture (e.g. data structures, warehouses, interactions, products) and drive implementation of Information Security Architectures from a SoS perspective. As needed, coordinate engineering change request to federate existing Army business processes and systems. Synchronize with Army policy/strategy and with mission system owners. As needed, conduct engineering-assessments of crosscutting cyber focused architectures, solutions, and capabilities proposed by Programs of Record, Cross Functional Teams, and Rapid Capabilities and Critical Technologies Office. Increase engineering rigor though policies, processes, tools, and technical oversight across systems and systems-of-systems in order to maximize the cyberspace survivability of the Army Acquisition portfolio. Define, publish, and revise as needed a standardized Cyber Acquisition Discipline Artifact for PMs to demonstrate the repeatable implementation of cyber survivability attributes during decision point reviews. Develop and maintain an Implementation Guidebook to improve awareness and consistency of related planning and execution. Support the AAE in reviewing the Cyber Acquisition Discipline Implementation Assessment during decision reviews for all Acquisition Category 1 and 2 programs, as well as MDAs/DAs for other systems as requested. Lead the development of cyberspace contract language requirements and templates, and publish in policy for the acquisition workforce. IAW AR-70-75, represent HQDA on boards and committees concerning materiel survivability matters related to cyberspace resilience. Serve as HQDA lead responsible for tracking and monitoring cyberspace remediation (find-fix-verify) as recommended by the Department of Defense Office of Inspector General (DODIG). Provide engineering governance for emerging cyberspace related capabilities and advances to include artificial intelligence, cloud-computing governance, Development, Security and Operations (DevSecOps), supply chain risk management, zero trust, etc. Ensure ASA(ALT)'s cyber-related roadmaps align with Army/DoD CIO regarding data, cloud migration, data centers, etc. Analyze requirements and opportunities as well as publish ASA(ALT) internal Technical Bulletins and other information papers to inform PMs. Coordinate with capability developers to establish systems engineering criteria in order to ensure new requirements documents address cyber resilience. Coordinate with Army Materiel Command to establish policy and processes that shall maintain cybersecurity and survivability for programs			

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: March 2023
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
transitioning to sustainment. Lead, in coordination with HQDA G-3/5/7, the establishment of the materiel component of the cyber readiness framework as an interface between systems and operations, which requires authoritative and accessible data from the acquisition and sustainment communities to reduce operational risk. This Project will serve as the ASA(ALT) lead for System Security Engineering (SSE). Army requires a professional and effective SSE workforce, which is separate from information system security management (ISSM) or network defense functions. SSE contributes to a broad-based, holistic security perspective and focus within the systems engineering (SE) discipline. SSE ensures stakeholder protection needs and security concerns are properly identified and addressed in all engineering stages of the system life cycle. Coordinate with OUSD to define the DoD body of knowledge for SSE. Ensure duties align with prescribed training, experience, and certification. Coordinate appointment and implementation and facilitate collaboration across PEOs through meetings and publications. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Reallocation of available labor category resources.			
Title: Facilities and IT Support ***Description:*** Provides funding for infrastructure/facilities and IT support. ***FY 2023 Plans:*** Provides funding for infrastructure and facilities, including the costs for purchasing and leasing hardware, software, computers, communications equipment and services. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Facility/IT Support Operating Costs moved to FY24 OCSE OMA line APE 432612 per Army Directive.	0.233	0.423	-
Title: Army System of Systems Engineering and Analysis ***Description:*** Provided coordinated SoS engineering, architectures, and analysis products for integrating new technologies with existing capabilities to stakeholders (e.g. materiel developers, TRADOC Capability Manager (TCM), Army Capabilities Integration Center (ARCIC), etc.) to deliver integrated solutions to Army formations.	14.844	-	-
Title: Cyber ***Description:*** This project funds cyber support to PEOs/PMs to include cybersecurity support to risk management framework, cyber engineering and architecture development, industry cybersecurity engagement, and cyber program oversight and governance, which ensures the secure, affordable, and effective delivery of Army materiel solutions that address critical Army modernization objectives, as well as the delivery of agile and advanced cyber solutions to equip the Army's offensive and	3.733	-	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
defensive forces in the cyberspace domain. These funds support synchronization, analysis and integration of Cyber functions and products.			
Title: Data ***Description:*** OCSE represents and coordinates the ASA(ALT) community's data activities across the Army Modernization Enterprise (AME). OSCE supports the ASA(ALT) Data Steward and performs the duties as the Functional Data Manager in Army Data Governance Forums including the Army Data Board (ADB), Army Analytics Board (AAB) and Joint All Domain Command and Control (JADC2) Working Groups. In addition to representing the ASA(ALT) in Army data forums the OCSE is actively improving the ASA(ALT) data environment through the establishment of governance forums, standards, policies and implementation guides in order to facilitate rapid and relevant acquisition decisions. Continuous maturation of the Acquisition Data Domain (ADD) ensures that technical data is available for successful integration and support of product and program life-cycle requirements, additive and advanced manufacturing, digital engineering, product/technical data, intellectual property management, modular open systems approach and other AME initiatives. OCSE has developed a roadmap for the digital transformation of the ASA(ALT) and has begun executing against that plan through the execution of data analytic use cases which provide minimum viable products (MVP) and delivers incremental value to the AME. OCSE will continue to deliver MVPs for data analytic use cases and as appropriate scale these MVPs across the enterprise in order to transform the ASA(ALT)?s business processes in support of its digital and data centric transformation. OCSE hosts the Product Data and Engineering Working Group (PEWG) which provides a collaboration forum focused on product and technical data with representatives from the ASA(ALT), Army Futures Command (AFC), and Army Materiel Command (AMC). This group includes a collection of product and technical data SMEs that collaborate and synchronize responses to questions related to the technical and product data needs that support modernization requirements across these organizations. PEWG members collaborate to work through details of strategic Army initiatives, and facilitate the transition of technical data throughout the product development lifecycle.	2.166	-	-
Title: SBIR/STTR Transfer ***FY 2023 Plans:*** Funding transferred in accordance with Title 15 USC 638. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Funding transferred in accordance with Title 15 USC 638.	-	0.770	-
Accomplishments/Planned Programs Subtotals	20.976	21.086	20.828

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C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

This project does not have any requirement for direct procurement of hardware or software.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army			Date: March 2023
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SBIR/STTR Transfer	TBD	Various : None	0.339	-		0.770		-		-		-	Continuing	Continuing	-
		Subtotal	0.339	-		0.770		-		-		-	Continuing	Continuing	N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Army System of System Engineering and Analysis Core Labor	Allot	Office of the Chief Systems Engineer (OCSE) : Various	21.203	6.454	Nov 2019	-		-		-		-	Continuing	Continuing	-
Army System of System Engineering and Analysis Matrix Labor	MIPR	Various : Various	4.988	1.400	Nov 2019	-		-		-		-	Continuing	Continuing	-
Army System of System Engineering and Analysis SETA Labor	C/CPFF	TBD : Various	13.154	4.354	Nov 2019	-		-		-		-	Continuing	Continuing	-
Army System of System Engineering and Analysis FFRDC Labor	FFRDC	MITRE : Various	12.582	2.475	Nov 2019	-		-		-		-	Continuing	Continuing	-
Common Operating Environment (COE) Core Labor	Allot	SoSE&I : Various	1.603	0.161	Nov 2019	-		-		-		-	Continuing	Continuing	-
Cyber Core Labor	Allot	Office of the Chief Systems Engineer (OCSE) : Various	6.499	1.772	Nov 2019	-		-		-		-	Continuing	Continuing	-
Cyber Matrix Labor	MIPR	Various : Various	1.645	0.584	Nov 2019	-		-		-		-	Continuing	Continuing	-
Cyber SETA Labor	C/CPFF	TBD : Various	1.203	0.727	Nov 2019	-		-		-		-	Continuing	Continuing	-
Cyber FFRDC Labor	FFRDC	MITRE : Various	2.777	0.650	Nov 2019	-		-		-		-	Continuing	Continuing	-
Data Core Labor	Allot	Office of the Chief Systems Engineer (OCSE) : Various	-	0.801	Nov 2019	-		-		-		-	Continuing	Continuing	-
Data Matrix Labor	MIPR	Various : Various	-	0.400	Nov 2019	-		-		-		-	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army			Date: March 2023
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Data SETA Labor	C/CPFF	TBD : Various	-	0.640	Nov 2019	-		-		-		-	Continuing	Continuing	-
Data FFRDC Labor	FFRDC	MITRE : Various	-	0.325	Nov 2019	-		-		-		-	Continuing	Continuing	-
Systems Engineering Governance Core Labor	TBD	Office of the Chief Systems Engineer (OCSE) : Various	-	-		1.905	Nov 2019	2.020	Oct 2022	-		2.020	Continuing	Continuing	-
Systems Engineering Governance Matrix Labor	TBD	Various : Various	-	-		0.822	Nov 2019	0.373	Oct 2022	-		0.373	Continuing	Continuing	-
Systems Engineering Governance SETA Labor	TBD	TBD : Various	-	-		2.159	Nov 2022	2.576	Dec 2023	-		2.576	Continuing	Continuing	-
Systems Engineering Governance FFRDC Labor	TBD	MITRE : Various	-	-		0.933	Nov 2019	1.139	Oct 2022	-		1.139	Continuing	Continuing	-
Engineering Support and Services Core Labor	TBD	Office of the Chief Systems Engineer (OCSE) : Various	-	-		2.177	Nov 2019	2.305	Oct 2022	-		2.305	Continuing	Continuing	-
Engineering Support and Services Matrix Labor	TBD	Various : Various	-	-		0.940	Nov 2019	0.426	Oct 2022	-		0.426	Continuing	Continuing	-
Engineering Support and Services SETA Labor	TBD	TBD : Various	-	-		2.467	Nov 2022	2.938	Dec 2023	-		2.938	Continuing	Continuing	-
Engineering Support and Services FFRDC Labor	TBD	MITRE : Various	-	-		0.680	Nov 2019	0.828	Oct 2022	-		0.828	Continuing	Continuing	-
Strategic Engineering Guidance Core Labor	TBD	Office of the Chief Systems Engineer (OCSE) : Various	-	-		2.801	Nov 2019	2.968	Oct 2022	-		2.968	Continuing	Continuing	-
Strategic Engineering Guidance Matrix Labor	TBD	Various : Various	-	-		1.208	Nov 2019	0.549	Oct 2022	-		0.549	Continuing	Continuing	-
Strategic Engineering Guidance SETA Labor	TBD	TBD : Various	-	-		3.037	Nov 2022	3.774	Dec 2023	-		3.774	Continuing	Continuing	-
Strategic Engineering Guidance FFRDC Labor	TBD	MITRE : Various	-	-		0.764	Nov 2019	0.932	Oct 2022	-		0.932	Continuing	Continuing	-
		Subtotal	65.654	20.743		19.893		20.828		-		20.828	Continuing	Continuing	N/A

Remarks

Note: 1

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army			Date: March 2023
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY7 / *Army Systems Engineering, Architecture & Analysis*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
- Program Activities performed at Aberdeen Proving Ground (MD), Taylor Bldg, (Crystal City, VA), Pentagon, (Washington DC), TACOM (Warren, MI)															

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Facilities and IT Support	Option/ Various	Various: Note: 1 : National Capital Region	4.702	0.233	Nov 2019	0.423	Nov 2019	-		-		-	0.423	5.781	-
		Subtotal	4.702	0.233		0.423		-		-		-	0.423	5.781	N/A

Remarks

Note:1

- Program Activities performed at Aberdeen Proving Ground (MD), Taylor Bldg, (Crystal City, VA), Pentagon, (Washington DC), TACOM (Warren, MI)

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	70.695	20.976		21.086		20.828		-		20.828	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

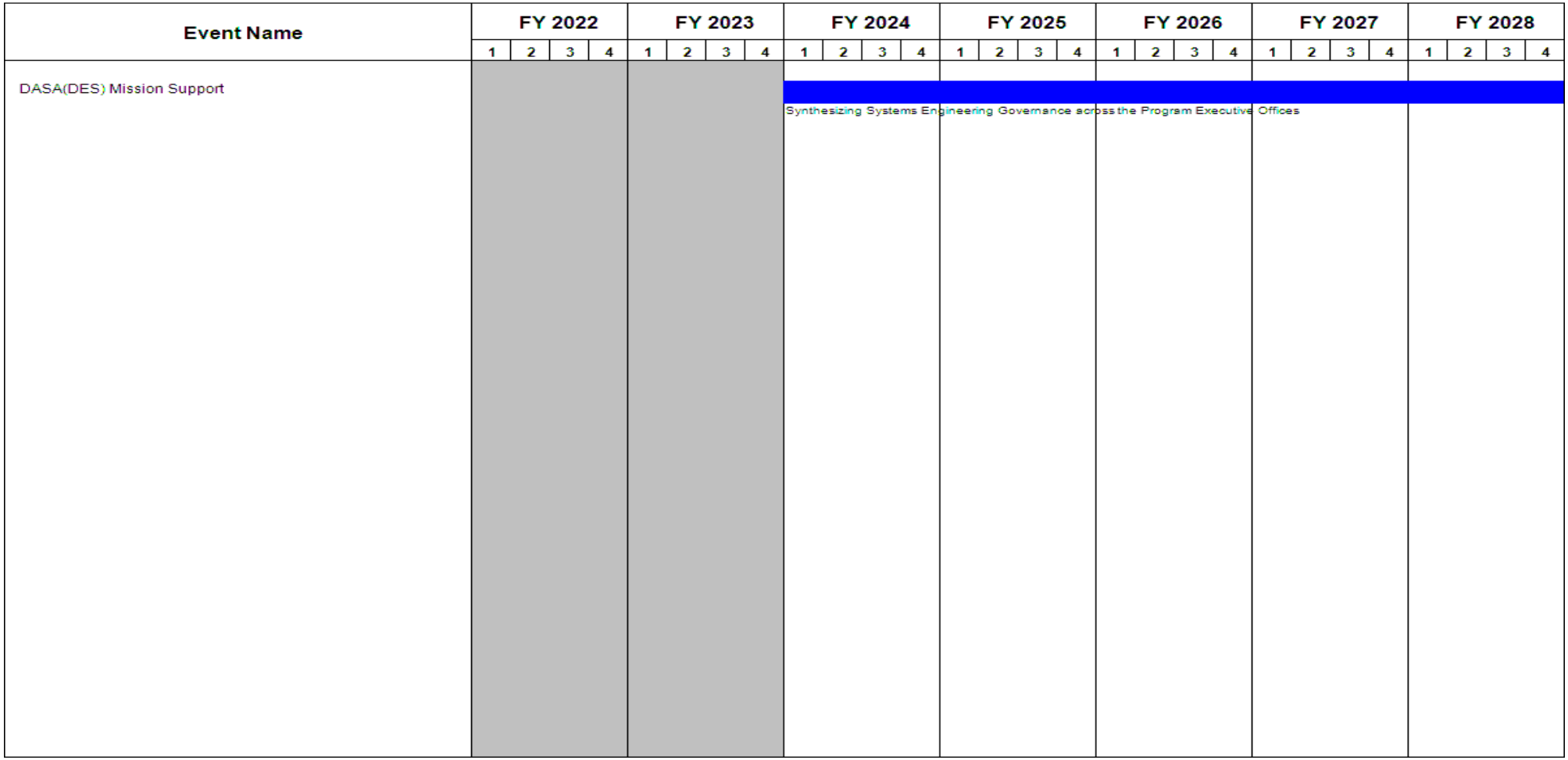

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
DASA(DES) Mission Support	1	2024	4	2028

Note

Capability Set (CS)

Common Operating Environment (COE):
Army Interoperability Certification (AIC), Command Post Computing Environment (CPCE), Critical Design Review (CDR), Mounted Computing Environment (MCE), Network Integration Evaluation (NIE), Operational Test (OT)