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

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603739N / <i>Navy Logistic Productivity</i>
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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	58.002	3.739	0.669	0.899	-	0.899	1.426	1.227	1.102	1.121	Continuing	Continuing
2955: <i>JEDMICS</i>	53.438	2.762	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	56.200
3223: <i>Logistics R&D</i>	4.564	0.977	0.669	0.899	-	0.899	1.426	1.227	1.102	1.121	Continuing	Continuing

A. Mission Description and Budget Item Justification

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under ADVANCED COMPONENT DEVELOPMENT AND PROTOTYPES because it includes all efforts necessary to evaluate integrated technologies, representative models or prototype systems in a high fidelity and realistic operating environment.

Includes development and evaluation of incentive systems for improving the productivity of civilian and military personnel. Identifies barriers to increased productivity and evaluates the effect of removing them. Develops techniques for easing the introduction of new technology to the work place. Identifies and evaluates methods for improving the quality of work-life.

Excludes civilian and military manpower and their related costs and military construction costs which are included in appropriate Management and Support elements in this program.

B. Program Change Summary (\$ in Millions)	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	3.880	0.669	0.000	-	0.000
Current President's Budget	3.739	0.669	0.899	-	0.899
Total Adjustments	-0.141	0.000	0.899	-	0.899
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.026	0.000			
• SBIR/STTR Transfer	-0.115	0.000			
• Rate/Misc Adjustments	0.000	0.000	0.000	-	0.000
• Adjustments to Budget Year	-	-	0.899	-	0.899

Change Summary Explanation

FY 2023 funding request was reduced by \$0.360 million to account for the availability of prior year execution balances. Inflation increase of \$0.031 million provided.

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

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy										Date: April 2022		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603739N / Navy Logistic Productivity				Project (Number/Name) 2955 / JEDMICS			
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
2955: JEDMICS	53.438	2.762	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	56.200
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

In FY85 Congress directed the Services and Defense Logistics Agency to permanently capture, manage and control engineering data in digital format so it would be available to support competitive spares re-procurement. The Joint Engineering Data Management Information & Control System (JEDMICS) program manages and controls 100,000,000 engineering images and has 13,000 authorized users responsible for over 77,000 user sessions per month. Over 1.2 million digital images are retrieved each month. New data and new users are added each month as DoD re-engineers its business processes to take advantage of digital data that is managed and controlled for corporate reuse. The JEDMICS system is deployed at 5 interoperable sites that service user locations worldwide. Data stored in JEDMICS is used for Logistics Support, Spares re-procurement, Weapons Systems procurement, Engineering, Maintenance, Distribution, Manufacturing, Air National Guard and Deployed Engineering Technical Services organizations. JEDMICS facilitates work process re-design since it brings the electronic drawings to the desktop, shop floor or flight line in real time eliminating walk, wait and slack time to retrieve drawings. Additionally, Administrative Lead Time, Repair Turn Around Time, Engineering Change Proposal processing time, demilitarization time, and all cycle times dependent on engineering data have decreased with the real time availability of digital engineering data. JEDMICS also facilitates Electronic Commerce since it produces digital technical data packages that can be forwarded along with an electronic order. Funds are for Commercial Off The Shelf (COTS) test, evaluation and integration. JEDMICS development efforts are required to integrate and test COTS upgrades.

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: JEDMICS Development	2.754	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
Description: Conduct development efforts associated with JEDMICS software releases. Conduct COTS requirements definition, evaluation, integration and testing of annual baseline releases. Conduct technology insertion of the JEDMICS system that is required to protect the \$21B digital data asset managed in JEDMICS.					
These annual releases are necessary to incorporate changes that are essential to keeping the system running within the Navy's Enterprise. They include Service mandated Information Technology changes, storage capability increases for emerging engineering data formats, changes to accommodate commercial hardware and software end-of-life product obsolescence, and defenses for newly recognized Information Assurance vulnerabilities affecting the systems various software applications.					
FY 2022 Plans:					

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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603739N / Navy Logistic Productivity	Project (Number/Name) 2955 / JEDMICS
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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 2023 Base Plans: N/A					
FY 2023 OCO Plans: N/A					
Title: JEDMICS Test	0.008	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
Description: Conduct test and readiness reviews and functional performance tests on JEDMICS system.					
FY 2022 Plans: N/A					
FY 2023 Base Plans: N/A					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	2.762	0.000	0.000	0.000	0.000

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

Remarks

D. Acquisition Strategy
Competitively awarded requirements type contract for engineering, design, development and test efforts. Performance-based reviews conducted quarterly by the Project Management Office.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603739N / Navy Logistic Productivity	Project (Number/Name) 2955 / JEDMICS
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Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Development Support	WR	Naval Air Warfare Center : NAS Patuxent River, MD	0.000	0.046	Oct 2020	0.000		0.000		-		0.000	0.000	0.046	-
Software Development	Various	Northrop Grumman Information : McLean, VA	46.804	1.863	Nov 2020	0.000		0.000		-		0.000	0.000	48.667	-
Prior Year Support no Longer Funded in Budget Year or Out years	Various	Various : Various	1.862	0.000		0.000		0.000		-		0.000	0.000	1.862	-
Subtotal			48.666	1.909		0.000		0.000		-		0.000	0.000	50.575	N/A

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation	MIPR	WR-ALC/TILAB : Robins AFB, GA	2.639	0.008	Oct 2020	0.000		0.000		-		0.000	0.000	2.647	-
Subtotal			2.639	0.008		0.000		0.000		-		0.000	0.000	2.647	N/A

Remarks
Supports testing and evaluation of baseline releases in a user environment.

Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management Support	WR	Naval Air Warfare Center : NAS Patuxent River, MD	0.343	0.000		0.000		0.000		-		0.000	0.000	0.343	-
Travel	Various	Various : Various	0.310	0.000		0.000		0.000		-		0.000	0.000	0.310	-
Prior Year Mgmt no Longer Funded in Budget Year or Out years	Various	Various : Various	1.083	0.000		0.000		0.000		-		0.000	0.000	1.083	-

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603739N / Navy Logistic Productivity	Project (Number/Name) 2955 / JEDMICS
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	FY2021				FY2022				FY2023				FY2024				FY2025				FY2026				FY2027							
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
JEDMICS																																
Acquisition Milestones																																
<i>IOC</i>		▲		▲																												
<i>Requirements: Service IPT/ECP's</i>																																
<i>Contract Award</i>	●																															
<i>Software & Hardware Evaluation/Integration</i>		■																														
Test & Evaluation Milestones																																
<i>Risk Assessment</i>			■																													
<i>Developmental /Functional Testing</i>				■																												
<i>Alpha/Beta Testing</i>		■	■																													
Deliveries																																
<i>ECP Change Package</i>		▼		▼																												
	3.0.21			3.0.22																												

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603739N / Navy Logistic Productivity	Project (Number/Name) 2955 / JEDMICS
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
JEDMICS				
Aquisition Milestones: IOC: IOC Release 3.0.21	2	2021	2	2021
Aquisition Milestones: IOC: IOC Release 3.0.22	4	2021	4	2021
Aquisition Milestones: Contract Award: 2021 Contract Award	1	2021	1	2021
Aquisition Milestones: Software & Hardware Evaluation/Integration: Software Hardware Evaluation/Integration Release 3.0.22	1	2021	3	2021
Test & Evaluation Milestones: Risk Assesment: Risk Assessment Release 3.0.22	2	2021	2	2021
Test & Evaluation Milestones: Developmental/Functional Testing: Developmental/Functional Testing Release 3.0.22	2	2021	3	2021
Test & Evaluation Milestones: Alpha/Beta Testing: Alpha/Beta Testing Release 3.0.21	1	2021	1	2021
Test & Evaluation Milestones: Alpha/Beta Testing: Alpha/Beta Testing Release 3.0.22	2	2021	3	2021
Deliveries: Engineering Change Package: Engineering Change Package Release 3.0.21	2	2021	2	2021
Deliveries: Engineering Change Package: Engineering Change Package Release 3.0.22	4	2021	4	2021

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy										Date: April 2022		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603739N / Navy Logistic Productivity				Project (Number/Name) 3223 / Logistics R&D			
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
3223: Logistics R&D	4.564	0.977	0.669	0.899	-	0.899	1.426	1.227	1.102	1.121	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Stable annual funding is required to facilitate implementation and execution of a robust, flexible Logistics R&D program that will provide the means for Naval Supply Systems Command (NAVSUP) to effectively pursue solutions to mission-related capability and technology gaps. The NAVSUP Logistics R&D program has an established infrastructure and business process for ensuring that R&D funds are applied to projects that address high priority enterprise needs established in accordance with OPNAV goals and the NAVSUP Commander's Guidance.

From a process perspective, Logistics R&D investments are governed by a NAVSUP enterprise-wide Executive Steering Group (ESG) chaired by the NAVSUP Vice Commander, and comprised of SES and Command leadership representatives. The ESG ratifies capability and technology gaps identified by all activities within the enterprise, and then assesses and prioritizes all proposed Logistics R&D initiatives in accordance with their potential for filling the established gap and generating return on investment.

The established Logistics R&D business management process has currently identified capability/technology gaps in the following general areas: 1) the need to develop formalized food service management techniques that focus on increased efficiency of new and existing systems and facilities. 2) the need to modernize quality of life (QOL) services to improve overall services, offer additional desired features and reduce total ownership costs, 3) the need to assess clothing protection for the warfighter in areas of thermal/flame threats, protective footwear, and physical (hearing, vibration, etc.) clothing/accessories, 4) the need to develop logistics data access and information sharing through enhanced Graphical User Interfaces (GUI) and web-based data services, 5) the need to develop a capability that allows Integrated Logistics Support (ILS) repair and modernization tools, 6) the need to leverage breakthrough technologies to improve supply chain processing. This modest R&D investment will establish a NAVSUP Logistics R&D Program to explore additional technologies and significantly increase potential cost savings.

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Digital Logistics	0.000	0.000	0.123	0.000	0.123
Articles:	-	-	-	-	-
Description: Digital Logistics					
FY 2022 Plans: N/A					
FY 2023 Base Plans: Sensing Fuel Infrastructure: Effort would remove the need to manually check levels, gages, flows, etc. (\$50k)					

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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
<p>Tamper Resistant RFID Tags: Pilot and trial use of tamper resistant RFID tags in NAVSUP warehouses to support anti- pilfering, theft, counterfeiting (\$73k)</p> <p>FY 2023 OCO Plans: N/A</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: New Initiatives for FY23.</p>					
<p>Title: 3D Virtual Design Software Improvement</p> <p align="right">Articles:</p> <p>Description: 3D Virtual Design Software Improvement</p> <p>FY 2022 Plans: N/A</p> <p>FY 2023 Base Plans: 3D Virtual Design Software Improvement: Additional funding will support the need to continue research and implementation of 3D prototyping capability within Navy Clothing and Textile Research Facility (NCTRF). Industry is rapidly changing the technology a specific area of need identified which Gerber system currently does not have is the capability to achieve a higher level of accuracy and ease of use in creating the 3D prototypes. Previously funded efforts were to validate the concept of 3D software technology and use, this request is improve upon the software that was selected. This market is constantly evolving and with investment in this improvement, we will continue to meet our customers' demands, establish a robust 3D library of materials, include avatars with dynamic positioning in graded sizes, and establish an SOP for creating 3D prototypes.</p> <p>(\$66k)</p> <p>FY 2023 OCO Plans: N/A</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: This is a new initiative for FY23.</p>	0.000	0.000	0.066	0.000	0.066
	-	-	-	-	-
<p>Title: Supply Chain Optimization</p> <p align="right">Articles:</p>	0.125	0.136	0.120	0.000	0.120
	-	-	-	-	-

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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
<p>Description: Enable innovation in our supply chain processes in the areas of data sciences, logistics IT application development, and quality engineering through incorporation of Science, Technology, Engineering, and Math (STEM) projects performed by interns and academia.</p> <p>Perform market research on emerging supply chain technologies and methods that could be adopted to support the DoN/DoD material supply chain.</p> <p>Developed a new functionality (software supporting data structure and migration of current data) within Ordinance Information System (OIS) that provides visibility of serialized assets use and requirements.</p> <p>FY 2022 Plans: Supply Capabilities Repository to Lower Costs of Contracts, Reduce Lead-Time of Spare Parts Procurements, and Lower Risk of Supply Chain Availability: The current method for finding sources for Critical Application Items (CAI) and Non-Critical Items (NC) are based on employee corporate knowledge of different vendor capabilities and calling a company to see if they have capacity and interest. Newer employees generally know few sources and may not know all the capabilities associated with each vendor. NAVSUP needs to create a Sourcing Portal with a repository listing of companies and capabilities. As requirements are submitted by NAVSUP without any or enough sources, an employee should review the drawing to find requirements, enter the requirements into the repository, and receive a list of compatible companies' contact information. This repository and workflow will increase the pool of known companies and their capabilities for any part thereby increasing competition and lowering lead-time and the costs to the Navy. Development of this Sourcing Portal will mitigate risk to the supply chain by providing a broad and complete visibility of vendor's capacity and capability. (\$136K)</p> <p>FY 2023 Base Plans: Augmented Reality for Warehouses: Development of Augmented Reality (AR) demonstration for use in NAVSUP warehouses. AR glasses would provide user in warehouse navigation guidance to determine where to find items. (\$71k)</p> <p>Logistic System Cross System: Review and analysis of logistic system cross system, to identify and determine modifications required to allow exchange of physical assets without re-tagging or marking the material/asset. Effort would include review of MIL-STND compliance and policy.</p>					

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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
(\$49k) FY 2023 OCO Plans: N/A FY 2022 to FY 2023 Increase/Decrease Statement: Resources reallocated to better reflect program priorities.					
Title: Readiness through Logistics Solutions Articles: Description: Supply chain improvements are required to support logistics efficiency and Fleet readiness through logistics solutions technological improvements. Develop technological capabilities that improve Naval Logistics in part or in its record (from manufacture, storage, delivery, use, maintenance, and disposal). FY 2022 Plans: NAVSUP Augmented Reality (AR) Initiative: NAVSUP Business Systems Center (BSC) is an epicenter for technology Insertion for Navy. In addition, BSC provides end-to-end program management and lifecycle management for Business Systems and a variety of DoD Information Systems. An emerging technology at the forefront of the commercial sector is Virtual/Mixed Reality (VR). VR has vast proven industrial applications for supporting training, warfighting simulations, system maintenance, collaboration and logistics. Augmented Reality harnesses the power of virtual reality while creating an enhanced version of reality created by the use of technology to add digital information to any space. NAVSUP has a requirement to assess emerging VR/MR technologies to fully understand and evaluate the following: a) The technological maturity of the hardware and software, b) The full costs of VR/MR systems and implementation parameters, c) The capabilities and "ready now" use cases involving supply and maintenance applications, and d) the system architectures required to support VR/MR systems, to include security postures. NAVSUP will perform a series of technical demonstrations and hands on workshops for the technical teams. The purpose of the engagements will be to use several VR/MR systems and study the applications including the Microsoft HoloLense 2 Platform, Blippar, Meta 2, MagicLeap One, Smart Reality, AccuVein, Bosh augmented understanding of the technology, the supporting architecture and the strengths/limitations of the VR capability. Specific use cases will involve maintainers and warehouse operations. (\$136K) FY 2023 Base Plans:	0.150	0.136	0.000	0.000	0.000
	-	-	-	-	-

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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
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<p>N/A</p> <p>FY 2023 OCO Plans: N/A</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Resources reallocated to better reflect program priorities.</p>					
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<p>Title: Clothing Protection for the Warfighter</p> <p align="right">Articles:</p> <p>Description: Identify challenges to effectively manage durability and safety aspects of common work/combat uniforms for the warfighter. Eliminate risk of hazardous factors such as fire, weather, and general wear/tear to maximize readiness and strength in Fleet uniforms. Assist with specifications associated with permanent press finish related to the rollout of the Navy's Type III uniform.</p> <p>FY 2022 Plans: 3D Virtual Design Software for Improving Uniform Fit and Providing Virtual Prototypes: This new capability will address a need for quick, affordable, and accurate prototyping. The system will provide a capability to bypass the time consuming process of multiple physical prototypes for any type of item whether it be dress, utility, or chemical-biological, resulting in a better fitting garment in a shorter amount of time. (\$51K) Sensor Data Validation and System Verification of Articulating Thermal Sensing Manikin for use in a Flame Filled Environment: Develop a methodology of characterizing each sensor response in place and evaluate the capabilities and performance of the Articulating Thermal Sensing Manikin (ARTHESMA) system and integration with the systems at the Ouelette Thermal Test Facility in Natick, MA. (\$38K) Analysis of Impact on Navy Uniforms by Proposed Change of Navy Shipboard Wash Chemicals: Investigate the acceptability of the product system change from Ecolab Solid Surge Navigator Systems to Ecolab Aquanomic Biocare System for shipboard laundry and is there is any effect/change on uniform care labels. This new greener approach in shipboard laundry systems has the potential to reduce energy costs, lower water consumption and through this evaluation determine if there are reduced negative effects that current washing has on material. (\$48K) Improved Flame Resistance Variant Coverall (I2FRV): Management of organizational clothing will be streamlined by eliminating three (3) coveralls/70 NSNs from the system. Sailors will benefit by receiving a more functional</p>	0.702	0.397	0.590	0.000	0.590
	-	-	-	-	-

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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
<p>coverall which can work in multiple shipboard environments, eliminating the need for storage and management of multiple coverall types. (\$38K)</p> <p>Improved Shipboard Flame Resistance (FR) Jacket: The goal of this effort is to develop an improved cold weather shipboard FR jacket with a modernized design which meets or exceeds current requirements, while being cheaper, lighter weight, and space-saving. Current jacket design and materials in the system have not been evaluated in over 20 years. (\$51K)</p> <p>Standardization of Identification Markings and Technology for Organizational Clothing Worn by Navy Sailors in Surface Warfare Operations: This will establish a standard identification requirement for U.S. Navy organizational clothing and provide a recommendation for integrating the most effective technology solutions into both Sailor's work environment and uniform/personal equipment without adverse impact to the mission. (\$48K)</p> <p>Identification of Sustainability Implementation Opportunities to Navy Clothing and Equipment throughout the Acquisition Life Cycle: Innovate the uniform supply chain by exploring sustainability in areas such as manufacturing process, use of recycled materials, repurposing surplus material, and recycling and reclaiming end items while implementing more closed loop systems and creation of circular product lifecycles. (\$38K)</p> <p>Standard Sizing to Incorporate into Body Scanners: The objective is to establish standardized sizes for uniforms and input the data into current developmental Body Scanner Technology. This project will validate the necessity of standardized sizes in order for the Body Scanner technology to accurately predict a Sailor's uniform size. (\$41K)</p> <p>Validation of Wissler Apparel Requirement Model (WARM) and expansion of protective clothing database for the model to predict thermal status in Extreme Environments: The project objective is to select a stable FORTRAN code for Wissler's model to run WARM (graphical user interface based). Using the Navy Clothing and Textile Research Facility's (NCTRF) submersible thermal manikin (NEMO) expand the database of localized thermal properties of current and new anti-exposure suits as well as protective garments used to support extreme climate operations. Predict safe exposure limits, and provide garment design guidelines to achieve required mission requirements. (\$44K)</p> <p>FY 2023 Base Plans: Assessment of the Effect of Women Specific Sizing on Clothing System Performance: Most Navy organizational and protective clothing and individual equipment items lack women specific sizes. Garment and equipment</p>					

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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
<p>fit impact Sailors' maneuverability and comfort and the clothing system's thermoregulatory and protective performance. This effort would assess the impact of women specific sized garments, handwear, and footwear, as compared to unisex/men's sized items, on the biophysical performance and protective performance using SHEMO thermal manikin and female flame manikin, respectively. (\$131k)</p> <p>Improved Welder's Coverall, Part III: This initiative will complete the Improved Welder's Coverall program to include development of the TDP and transition to a procurement agency. There is a potential that the I2FRV could be leveraged to meet the requirements of this community, but the coverall would need to be tested in a relevant environment to confirm its acceptance. (\$106k)</p> <p>Market Research on Made to Order: Navy Clothing and Textile Research Facility (NCTRF) has identified a capability gap within industry to rapidly address and the overall costs associated with special orders. With the allowance of transgender and along with unique bodies types, although a small subset of the service member population, they are vocal members that are not consistently addressed and do result in customers with the inability to meet mission requirement for policy/wear. This effort would be an investigation to establish a baseline of current special order process and document operations. The information would then be utilized to create and identify areas to establish a greater level of efficiency for "made to order" in order to provide an inclusive approach to the entire service member community. (\$35k)</p> <p>Development of Female Bra To Enhance Fit and Performance of Military Body Armor: Ballistic vests have presented an on-going fit issue for females in the military. Intention of this R&D program will be to research, design and develop a concept for a ballistic bra. Compression materials and design will be used to enhance the compatibility of fit with existing ballistic vests, while side ballistic panels will be incorporated into design to provide a higher level of protection for females. This project would be to develop a concept only and would not include ballistic testing in this phase. (124k)</p> <p>Navy Organizational Clothing Size Standardization: Develop a plan and implementation for the size standardization of the Organizational Clothing uniforms. The effort will include (1) the creation of pattern blocks and first uniform key style in two sizing systems, (2) conduct a uniform fit study to optimize the male and female fit and stature using the new Navy size standardization body measurements. Deliverable will include (1) pattern</p>					

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy	Date: April 2022
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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603739N / Navy Logistic Productivity	Project (Number/Name) 3223 / Logistics R&D
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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
blocks, (2) block prototypes, (3) the first key style Organizational uniform (selection of the uniform TBD), (4) finished measurements, and graded nest (3) the uniform key style fit study results. (\$194k) FY 2023 OCO Plans: N/A FY 2022 to FY 2023 Increase/Decrease Statement: Resources reallocated to better reflect program priorities.					
Accomplishments/Planned Programs Subtotals	0.977	0.669	0.899	0.000	0.899

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

N/A

Remarks

D. Acquisition Strategy

NAVSUP R&D executed through firm fixed price negotiated contracts and NAVSUP support. Performance-based reviews conducted quarterly by the Project Management Office.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603739N / Navy Logistic Productivity	Project (Number/Name) 3223 / Logistics R&D
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Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Effective Food Service Management	C/FFP	Various : Various	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Quality of Life Services Modernization & Cost Reduction (Initiative 1)	C/FFP	BSC : Mechanicsburg, PA	0.259	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Quality of Life Services Modernization & Cost Reduction (Initiative 2)	C/FFP	Various : Various	1.037	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Readiness through Logistics Solutions	C/FFP	Various : Various	1.550	0.150	Dec 2020	0.136	Dec 2021	0.123	Mar 2023	-		0.123	Continuing	Continuing	Continuing
Clothing Protection for the Warfighter	C/FFP	NCTRF : Natick, MA	1.377	0.702	Oct 2020	0.397	Oct 2021	0.590	Mar 2023	-		0.590	Continuing	Continuing	Continuing
Supply Chain Optimization	C/FFP	Various : Various	0.341	0.125	Dec 2020	0.136	Dec 2021	0.120	Apr 2023	-		0.120	Continuing	Continuing	Continuing
3D Virtual Design Software Imp	C/FFP	NCTRF : Natick, MA	0.000	0.000		0.000		0.066	Jun 2023	-		0.066	Continuing	Continuing	Continuing
Subtotal			4.564	0.977		0.669		0.899		-		0.899	Continuing	Continuing	N/A
Project Cost Totals			4.564	0.977		0.669		0.899		-		0.899	Continuing	Continuing	N/A

Remarks
 In previous plans, NAVSUP forecast budget requirements based on projections rooted in the current year's capability gaps. As our priorities and Strategic Guidance evolves so does our budget requirements. Through leveraging new technologies, NAVSUP will enhance efforts for supply ashore and distant support. We will strengthen our supply chain information technology and management solutions for supply and financial requirements. We will collaborate with partners to improve the quality-of-life experiences and expand services to deployed forces. NAVSUP will continue to build an ethical and effective workforce dedicated to the mission by developing new technological programs that are advantageous to the warfighter. We will reduce risk and minimize vulnerabilities to protect against disruptions to supply chain and business systems. All of our actions will follow a culture of moral excellence to successfully execute the current and future missions of NAVSUP.

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

Date: April 2022

Appropriation/Budget Activity
1319 / 4

R-1 Program Element (Number/Name)
PE 0603739N / Navy Logistic Productivity

Project (Number/Name)
3223 / Logistics R&D

Logistics R&D	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027							
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q				
Supply Chain Optimization																																
Contract Award		◆				◆				◆				◆				◆				◆				◆				◆		
Developmental/Functional Testing			—				—				—				—				—				—				—				—	
Implementation				■				■				■				■				■				■				■				■
Readiness through Logistics Solutions																																
Contract Award		◆				◆																										
Developmental/Functional Testing			—				—				—				—				—				—				—				—	
Implementation				■				■				■				■				■				■				■				■
3D Virtual Design Software Improvement																																
Contract Award											◆				◆				◆				◆				◆				◆	
Developmental/Functional Testing											—				—				—				—				—				—	
Implementation												■				■				■				■				■				■
Digital Logistics																																
Contract Award											◆				◆				◆				◆				◆				◆	
Developmental/Functional Testing											—				—				—				—				—				—	
Implementation												■				■				■				■				■				■
Clothing Protection for the Warfighter																																
Contract Award	◆					◆				◆				◆				◆				◆				◆				◆		
Developmental/Functional Testing		—				—				—				—				—				—				—				—		
Implementation			■				■				■				■				■				■				■				■	

2023OSD - 0603739N - 3223

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603739N / Navy Logistic Productivity	Project (Number/Name) 3223 / Logistics R&D

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Logistics R&D				
Supply Chain Optimization: Contract Award: FY 2021 Contract Award	2	2021	2	2021
Supply Chain Optimization: Contract Award: FY 2022 Contract Award	2	2022	2	2022
Supply Chain Optimization: Contract Award: FY 2023 Contract Award	2	2023	2	2023
Supply Chain Optimization: Contract Award: FY 2024 Contract Award	2	2024	2	2024
Supply Chain Optimization: Contract Award: FY 2025 Contract Award	2	2025	2	2025
Supply Chain Optimization: Contract Award: FY 2026 Contract Award	2	2026	2	2026
Supply Chain Optimization: Contract Award: FY 2027 Contract Award	2	2027	2	2027
Supply Chain Optimization: Developmental/Functional Testing: FY 2021 Developmental/Functional Testing	3	2021	3	2021
Supply Chain Optimization: Developmental/Functional Testing: FY 2022 Developmental/Functional Testing	3	2022	3	2022
Supply Chain Optimization: Developmental/Functional Testing: FY 2023 Developmental/Functional Testing	3	2023	3	2023
Supply Chain Optimization: Developmental/Functional Testing: FY 2024 Developmental/Functional Testing	3	2024	3	2024
Supply Chain Optimization: Developmental/Functional Testing: FY 2025 Developmental/Functional Testing	3	2025	3	2025
Supply Chain Optimization: Developmental/Functional Testing: FY 2026 Developmental/Functional Testing	3	2026	3	2026
Supply Chain Optimization: Developmental/Functional Testing: FY 2027 Developmental/Functional Testing	3	2027	3	2027
Supply Chain Optimization: Implementation: FY 2021 Implementation	4	2021	4	2021
Supply Chain Optimization: Implementation: FY 2022 Implementation	4	2022	4	2022
Supply Chain Optimization: Implementation: FY 2023 Implementation	4	2023	4	2023

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603739N / Navy Logistic Productivity	Project (Number/Name) 3223 / Logistics R&D
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Supply Chain Optimization: Implementation: FY 2024 Implementation	4	2024	4	2024
Supply Chain Optimization: Implementation: FY 2025 Implementation	4	2025	4	2025
Supply Chain Optimization: Implementation: FY 2026 Implementation	4	2026	4	2026
Supply Chain Optimization: Implementation: FY 2027 Implementation	4	2027	4	2027
Readiness through Logistics Solutions: Contract Award: FY 2021 Contract Award	2	2021	2	2021
Readiness through Logistics Solutions: Contract Award: FY 2022 Contract Award	2	2022	2	2022
Readiness through Logistics Solutions: Developmental/Functional Testing: FY 2021 Developmental/Functional Testing	3	2021	3	2021
Readiness through Logistics Solutions: Developmental/Functional Testing: FY 2022 Developmental/Functional Testing	3	2022	3	2022
Readiness through Logistics Solutions: Implementation: FY 2021 Implementation	4	2021	4	2021
Readiness through Logistics Solutions: Implementation: FY 2022 Implementation	4	2022	4	2022
3D Virtual Design Software Improvement: Contract Award: FY 2023 Contract Award	3	2023	3	2023
3D Virtual Design Software Improvement: Contract Award: FY 2024 Contract Award	3	2024	3	2024
3D Virtual Design Software Improvement: Contract Award: FY 2025 Contract Award	3	2025	3	2025
3D Virtual Design Software Improvement: Contract Award: FY 2026 Contract Award	3	2026	3	2026
3D Virtual Design Software Improvement: Contract Award: FY 2027 Contract Award	3	2027	3	2027
3D Virtual Design Software Improvement: Developmental/Functional Testing: FY 2023 Developmental/Functional Testing	3	2023	3	2023
3D Virtual Design Software Improvement: Developmental/Functional Testing: FY 2024 Developmental/Functional Testing	3	2024	3	2024
3D Virtual Design Software Improvement: Developmental/Functional Testing: FY 2025 Developmental/Functional Testing	3	2025	3	2025
3D Virtual Design Software Improvement: Developmental/Functional Testing: FY 2026 Developmental/Functional Testing	3	2026	3	2026
3D Virtual Design Software Improvement: Developmental/Functional Testing: FY 2027 Developmental/Functional Testing	3	2027	3	2027
3D Virtual Design Software Improvement: Implementation: FY 2023 Implementation	4	2023	4	2023

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603739N / Navy Logistic Productivity	Project (Number/Name) 3223 / Logistics R&D
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
3D Virtual Design Software Improvement: Implementation: FY 2024 Implementation	4	2024	4	2024
3D Virtual Design Software Improvement: Implementation: FY 2025 Implementation	4	2025	4	2025
3D Virtual Design Software Improvement: Implementation: FY 2026 Implementation	4	2026	4	2026
3D Virtual Design Software Improvement: Implementation: FY 2027 Implementation	4	2027	4	2027
Digital Logistics: Contract Award: FY 2023 Contract Award	3	2023	3	2023
Digital Logistics: Contract Award: FY 2024 Contract Award	3	2024	3	2024
Digital Logistics: Contract Award: FY 2025 Contract Award	3	2025	3	2025
Digital Logistics: Contract Award: FY 2026 Contract Award	3	2026	3	2026
Digital Logistics: Contract Award: FY 2027 Contract Award	3	2027	3	2027
Digital Logistics: Developmental/Functional Testing: FY 2023 Developmental/Functional Testing	3	2023	3	2023
Digital Logistics: Developmental/Functional Testing: FY 2024 Developmental/Functional Testing	3	2024	3	2024
Digital Logistics: Developmental/Functional Testing: FY 2025 Developmental/Functional Testing	3	2025	3	2025
Digital Logistics: Developmental/Functional Testing: FY 2026 Developmental/Functional Testing	3	2026	3	2026
Digital Logistics: Developmental/Functional Testing: FY 2027 Developmental/Functional Testing	3	2027	3	2027
Digital Logistics: Implementation: FY 2023 Implementation	4	2023	4	2023
Digital Logistics: Implementation: FY 2024 Implementation	4	2024	4	2024
Digital Logistics: Implementation: FY 2025 Implementation	4	2025	4	2025
Digital Logistics: Implementation: FY 2026 Implementation	4	2026	4	2026
Digital Logistics: Implementation: FY 2027 Implementation	4	2027	4	2027
Clothing Protection for the Warfighter: Contract Award: FY 2021 Contract Award	1	2021	1	2021
Clothing Protection for the Warfighter: Contract Award: FY 2022 Contract Award	1	2022	1	2022
Clothing Protection for the Warfighter: Contract Award: FY 2023 Contract Award	1	2023	1	2023

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603739N / Navy Logistic Productivity	Project (Number/Name) 3223 / Logistics R&D
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Clothing Protection for the Warfighter: Contract Award: FY 2024 Contract Award	1	2024	1	2024
Clothing Protection for the Warfighter: Contract Award: FY 2025 Contract Award	1	2025	1	2025
Clothing Protection for the Warfighter: Contract Award: FY 2026 Contract Award	1	2026	1	2026
Clothing Protection for the Warfighter: Contract Award: FY 2027 Contract Award	1	2027	1	2027
Clothing Protection for the Warfighter: Developmental/Functional Testing: FY 2021 Developmental/Functional Testing	2	2021	2	2021
Clothing Protection for the Warfighter: Developmental/Functional Testing: FY 2022 Developmental/Functional Testing	2	2022	2	2022
Clothing Protection for the Warfighter: Developmental/Functional Testing: FY 2023 Developmental/F4nctional Testing	2	2023	2	2023
Clothing Protection for the Warfighter: Developmental/Functional Testing: FY 2024 Developmental/Functional Testing	2	2024	2	2024
Clothing Protection for the Warfighter: Developmental/Functional Testing: FY 2025 Developmental/Functional Testing	2	2025	2	2025
Clothing Protection for the Warfighter: Developmental/Functional Testing: FY 2026 Developmental/Functional Testing	2	2026	2	2026
Clothing Protection for the Warfighter: Developmental/Functional Testing: FY 2027 Developmental/Functional Testing	2	2027	2	2027
Clothing Protection for the Warfighter: Implementation: FY 2021 Implementation	3	2021	3	2021
Clothing Protection for the Warfighter: Implementation: FY 2022 Implementation	3	2022	3	2022
Clothing Protection for the Warfighter: Implementation: FY 2023 Implementation	3	2023	3	2023
Clothing Protection for the Warfighter: Implementation: FY 2024 Implementation	3	2024	3	2024
Clothing Protection for the Warfighter: Implementation: FY 2025 Implementation	3	2025	3	2025
Clothing Protection for the Warfighter: Implementation: FY 2026 Implementation	3	2026	3	2026
Clothing Protection for the Warfighter: Implementation: FY 2027 Implementation	3	2027	3	2027