Department of Defense
Fiscal Year (FY) 2023 Budget Estimates

April 2022

Defense Logistics Agency

Defense-Wide Justification Book Volume 5 of 5

Research, Development, Test & Evaluation, Defense-Wide

THIS PAGE INTENTIONALLY LEFT BLANK

Table of Volumes

Volume 5 Table of Contents

THIS PAGE INTENTIONALLY LEFT BLANK

Department of Defense
FY 2023 President's Budget
Exhibit R-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

04 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Research, Development, Test & Eval, DW	252,947	350,904				
Total Research, Development, Test & Evaluation	252,947	350,904				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04
*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).
**Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).
***Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).
****Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

Department of Defense
FY 2023 President's Budget
Exhibit R-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

04 Apr 2022

Appropriation	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Research, Development, Test & Eval, DW		350,904	227,972
Total Research, Development, Test & Evaluation		350,904	227,972

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04

Department of Defense
FY 2023 President's Budget
Exhibit R-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

04 Apr 2022

Summary Recap of Budget Activities	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Advanced Technology Development	212,857	295,724				
System Development & Demonstration	22,730	31,790				
Management Support	8,606	11,500				
Operational Systems Development	8,754	11,890				
Total Research, Development, Test & Evaluation	252,947	350,904				
Summary Recap of FYDP Programs						
Research and Development	244,193	339,014				
Central Supply and Maintenance	8,754	11,890				
Total Research, Development, Test & Evaluation	252,947	350,904				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04
*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).
**Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).
***Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).
****Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

Department of Defense
FY 2023 President's Budget
Exhibit R-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

04 Apr 2022

Summary Recap of Budget Activities	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Advanced Technology Development		295,724	199,662
System Development & Demonstration		31,790	23,171
Management Support		11,500	
Operational Systems Development		11,890	5,139
Total Research, Development, Test & Evaluation		350,904	227,972

Summary Recap of FYDP Programs			
Research and Development		339,014	222,833
Central Supply and Maintenance		11,890	5,139
Total Research, Development, Test & Evaluation		350,904	227,972

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04

Defense-Wide
FY 2023 President's Budget
Exhibit R-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

04 Apr 2022

Summary Recap of Budget Activities	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Advanced Technology Development	212,857	295,724				
System Development & Demonstration	22,730	31,790				
Management Support	8,606	11,500				
Operational Systems Development	8,754	11,890				
Total Research, Development, Test & Evaluation	252,947	350,904				
Summary Recap of FYDP Programs						
Research and Development	244,193	339,014				
Central Supply and Maintenance	8,754	11,890				
Total Research, Development, Test & Evaluation	252,947	350,904				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04
*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).
**Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).
***Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).
****Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

Defense-Wide
FY 2023 President's Budget
Exhibit R-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

04 Apr 2022

Summary Recap of Budget Activities	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Advanced Technology Development		295,724	199,662
System Development & Demonstration		31,790	23,171
Management Support		11,500	
Operational Systems Development		11,890	5,139
Total Research, Development, Test & Evaluation		350,904	227,972

Summary Recap of FYDP Programs			
Research and Development		339,014	222,833
Central Supply and Maintenance		11,890	5,139
Total Research, Development, Test & Evaluation		350,904	227,972

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04

Defense-Wide
FY 2023 President's Budget
Exhibit R-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

04 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Defense Logistics Agency	252,947	350,904				
Total Research, Development, Test & Evaluation	252,947	350,904				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04
*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).
**Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).
***Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).
****Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

Defense-Wide
FY 2023 President's Budget
Exhibit R-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

04 Apr 2022

Appropriation	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Defense Logistics Agency		350,904	227,972
Total Research, Development, Test & Evaluation		350,904	227,972

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04

Defense-Wide
FY 2023 President's Budget
Exhibit R-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	Sec
55	0603680S	Manufacturing Technology Program	03	66,632	81,262					U
56	0603712S	Generic Logistics R&D Technology Demonstrations	03	14,507	11,987					U
58	0603720S	Microelectronics Technology Development and Support	03	131,718	202,475					U
		Advanced Technology Development		212,857	295,724					
134	0605070S	DOD Enterprise Systems Development and Demonstration	05	1,327	654					U
136	0605080S	Defense Agency Initiatives (DAI) - Financial System	05	21,403	31,136					U
		System Development & Demonstration		22,730	31,790					
163	0605502S	Small Business Innovative Research	06	8,606	11,500					U
		Management Support		8,606	11,500					
258	0708012S	Pacific Disaster Centers	07	1,720	5,733					U
259	0708047S	Defense Property Accountability System	07	7,034	6,157					U
		Operational Systems Development		8,754	11,890					
Total Research, Development, Test & Eval, DW				252,947	350,904					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04
*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).
**Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).
***Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).
****Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

Defense-Wide
FY 2023 President's Budget
Exhibit R-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Sec
55	0603680S	Manufacturing Technology Program	03		81,262	46,166	U
56	0603712S	Generic Logistics R&D Technology Demonstrations	03		11,987	13,663	U
58	0603720S	Microelectronics Technology Development and Support	03		202,475	139,833	U
		Advanced Technology Development			295,724	199,662	
134	0605070S	DOD Enterprise Systems Development and Demonstration	05		654		U
136	0605080S	Defense Agency Initiatives (DAI) - Financial System	05		31,136	23,171	U
		System Development & Demonstration			31,790	23,171	
163	0605502S	Small Business Innovative Research	06		11,500		U
		Management Support			11,500		
258	0708012S	Pacific Disaster Centers	07		5,733	1,875	U
259	0708047S	Defense Property Accountability System	07		6,157	3,264	U
		Operational Systems Development			11,890	5,139	
Total Research, Development, Test & Eval, DW					350,904	227,972	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04

Defense Logistics Agency
FY 2023 President's Budget
Exhibit R-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	Sec
55	0603680S	Manufacturing Technology Program	03	66,632	81,262					U
56	0603712S	Generic Logistics R&D Technology Demonstrations	03	14,507	11,987					U
58	0603720S	Microelectronics Technology Development and Support	03	131,718	202,475					U
	Advanced Technology Development			212,857	295,724					
134	0605070S	DOD Enterprise Systems Development and Demonstration	05	1,327	654					U
136	0605080S	Defense Agency Initiatives (DAI) - Financial System	05	21,403	31,136					U
	System Development & Demonstration			22,730	31,790					
163	0605502S	Small Business Innovative Research	06	8,606	11,500					U
	Management Support			8,606	11,500					
258	0708012S	Pacific Disaster Centers	07	1,720	5,733					U
259	0708047S	Defense Property Accountability System	07	7,034	6,157					U
	Operational Systems Development			8,754	11,890					
Total Defense Logistics Agency				252,947	350,904					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04
*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).
**Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).
***Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).
****Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

Defense Logistics Agency
FY 2023 President's Budget
Exhibit R-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Sec
55	0603680S	Manufacturing Technology Program	03		81,262	46,166	U
56	0603712S	Generic Logistics R&D Technology Demonstrations	03		11,987	13,663	U
58	0603720S	Microelectronics Technology Development and Support	03		202,475	139,833	U
	Advanced Technology Development				295,724	199,662	
134	0605070S	DOD Enterprise Systems Development and Demonstration	05		654		U
136	0605080S	Defense Agency Initiatives (DAI) - Financial System	05		31,136	23,171	U
	System Development & Demonstration				31,790	23,171	
163	0605502S	Small Business Innovative Research	06		11,500		U
	Management Support				11,500		
258	0708012S	Pacific Disaster Centers	07		5,733	1,875	U
259	0708047S	Defense Property Accountability System	07		6,157	3,264	U
	Operational Systems Development				11,890	5,139	
Total Defense Logistics Agency					350,904	227,972	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04

Program Element Table of Contents (by Budget Activity then Line Item Number)

Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide

Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide

Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide

Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide

Program Element Table of Contents (Alphabetically by Program Element Title)

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency											Date: April 2022	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*					R-1 Program Element (Number/Name) PE 0603680S *I Manufacturing Technology Program (ManTech)*							
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	171.406	66.632	81.262	46.166	-	46.166	45.157	46.173	47.066	47.917	Continuing	Continuing
IBMP: *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*	84.905	40.864	25.763	-	-	-	-	-	-	0.000	Continuing	Continuing
AAA: *Maintaining Viable Supply Sources (formerly High Quality Sources)*	64.853	15.864	16.950	-	-	-	-	-	-	0.000	Continuing	Continuing
OOO: *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*	21.648	9.904	38.549	-	-	-	-	-	-	0.000	Continuing	Continuing
IBA: *Industrial Base & Aging Weapon System Support*	-	0.000	0.000	35.222	-	35.222	35.509	36.352	37.064	37.809	Continuing	Continuing
TDM: *3D Tech Data Modernization / Model Based Enterprise*	-	0.000	0.000	10.944	-	10.944	9.648	9.821	10.002	10.108	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Logistics Agency (DLA) Manufacturing Technology (ManTech) Program funds the advanced technology development needed to achieve a responsive, efficient domestic industrial base that meets the warfighters' needs in an affordable and timely manner. The ManTech program works with DLA's diverse supply chains to improve manufacturing capability throughout a product's life cycle. It provides the crucial link between invention and application by maturing, scaling up, and validating advanced manufacturing technology in "real world" environments. ManTech developments provide a path to low-risk technology implementation for many small businesses and defense unique suppliers as well as depots and shipyards that are critical to DLA. By anticipating and addressing production and sustainment problems before they occur, readiness levels increase and sustainment costs are decreased.

Beginning in FY 2023, DLA ManTech shifts from three Strategic Focus Areas (SFAs) to two Lines of Effort (LOEs): 1) Industrial Base and Aging Weapon System Support (R&D LOE 1) and 2) 3D Technical Data Modernization / Model-Based Enterprise (R&D LOE 2). These LOEs are closely aligned to documented and tracked priorities specified in the most current DLA Strategic Plan, that calls for Digital Business Transformation as one of three critical capabilities to achieve DLA's business goals of enhancing performance, reducing costs, and becoming more predictive and data-driven. This critical capability also seeks to transform systems and processes to improve data transparency, reliability, and security for our employees, customers, and suppliers. DLA's initiatives within this critical capability align with the interim National Security Strategy (NSS) by emphasizing the importance of harnessing rapid emerging technologies that will transform how we do business.

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency	Date: April 2022
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603680S *I Manufacturing Technology Program (ManTech)*

-In addition to alignment to DLA's top strategic priorities, under Section 2521 of Title 10, US Code, DLA ManTech efforts are collaborated across DOD Military Services and Agencies. As a Principal member of the Joint Defense Manufacturing Technology Panel, DLA's efforts are integrated within the Joint Defense Priorities.

-The Industrial Base and Aging Weapon System Support LOE (R&D LOE 1) seeks to implement innovative and proactive technology solutions to ensure a robust, reliable industrial base that provides affordable and previously hard-to-procure critical parts for DOD weapon systems. This LOE aligns to DLA Strategic Plan LOE 1: Warfighter Always, DLA LOE 2: Trusted Mission Partner, DLA LOE 4: Modernized Acquisition and Supply Chain Management, as well as the cross-cutting Critical Capability C: Digital Business Transformation through the following portfolios: DOD Subsistence Supply Chain (Subsistence Network), Castings (Procurement Readiness Optimization—Advanced Casting Technology), Forgings (Procurement Readiness Optimization—Forging Advanced System Technology), Batteries (Battery Network), Additive Manufacturing (AM), and Advanced Microcircuit Emulation (AME).

-The 3D Technical Data Modernization / Model Based Enterprise LOE (R&D LOE 2) integrates three-dimensional technical data and knowledge-based tools to transform and streamline supply system responsiveness for DLA-managed commodities. Efforts seek to improve and facilitate the exchange of engineering and logistics information among DLA, the Military Services, DLA industry partners and DLA customers. The benefits include shorter product introduction cycles, lower set up-costs for parts production and more economical small batch production. Primarily focused on the DLA Strategic Plan Critical Capability C: Digital Business Transformation, this R&D LOE cuts across DLA Strategic Plan LOE 1: Warfighter Always, DLA LOE2: Trusted Mission Partner, and DLA LOE 4: Modernized Acquisition and Supply Chain Management through portfolios for DOD soldier and individual equipment (Military Unique Sustainment Technology ((MUST)) and Defense Logistics Information Research (DLIR), as well as out of budget cycle or Emerging Manufacturing Technology (EMT) requirements.

-Until the shift from SFAs to LOEs in FY 2023, DLA ManTech remains aligned into three Strategic Focus Areas (SFAs) for FY 2021 and FY 2022: 1) Improving Industrial Base Manufacturing Processes (IIBM); 2) Maintaining Viable Sources of Supply (MVSS); and 3) Improving Technical and Logistics Information (ITLI).

-The IIBM SFA includes efforts to reduce industrial base material costs and production lead-times, while improving the quality of DLA managed products. This SFA has supply chain focused execution portfolios for food (Subsistence Network), Castings (Procurement Readiness Optimization—Advanced Casting Technology), Forgings (Procurement Readiness Optimization—Forging Advance System Technology), Batteries (Battery Network) and Additive Manufacturing.

-The MVSS SFA includes efforts to assure the commercial industrial base can satisfy DLA materiel requirements without relying on foreign sources for microcircuits. This strategic focus area mitigates supply issues caused by the lack of a reliable domestic manufacturing capability to produce products or raw materials needed to build and maintain weapon systems. The major focus of the program is maintaining a reliable, trusted, domestic source for "non-procurable" linear and digital microcircuits. Microcircuit emulation allows the Services to save significant costs by using form, fit and functionally equivalent spare parts rather than redesigning the next-higher-assembly.

-The ITLI SFA includes efforts to improve and facilitate the exchange of engineering and logistics information among DLA, the Military Services, DLA industry partners and DLA customers. It includes the Military Unique Sustainment Technology (MUST) and the Defense Logistics Information Research (DLIR) programs. A primary focus of this SFA is to capitalize on the emerging "Model Based Enterprise" paradigm and the semantic web as an enabler to a logistics system that is smart and connected up and down the supply chain and across all DLA Customers and suppliers. A major focus is to transform DOD engineering data from two-dimensional paper-based

products to three-dimensional computer based models, and to develop processes to move from “electronic paper” (i.e. PDF files) to technical data files that can interface directly with industries’ engineering systems. The benefits include shorter product introduction cycles, lower set up-costs for parts production and more economical small batch production.

DLA’s focus for this budget cycle highlights advanced capabilities in digital and technical data modernization, data management and analytics to fulfill the DLA role in the DOD Digital Engineering Strategy and improve sharing of data with the industrial base and supported organizations. Investment explores technologies to lower the Agency’s material acquisition and operation costs and improve weapons systems support. This effort spans across both DLA R&D Program Elements and R&D LOEs, impacting across the DOD Joint Defense Manufacturing Technology Panel and DLA Enterprise logistics processes.

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	40.025	37.543	0.000	-	0.000
Current President's Budget	66.632	81.262	46.166	-	46.166
Total Adjustments	26.607	43.719	46.166	-	46.166
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	29.000	46.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.393	-3.006			
• Correction for Non-Pay/Non-Fuel Purchases	-	0.725	-	-	-
• Adjustments to Budget Year	-	-	46.166	-	46.166

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2021	FY 2022
Project: IBMP: *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*		
Congressional Add: *Improve Steel Performance Initiative in Castings*	10.000	10.000
Congressional Add: *Supply Chain adoption of additive manufacturing, automation, and robotics in Castings*	10.000	-
Congressional Add: *Additive Manufacturing Castings Model*	5.000	-
Congressional Add: *PFAS Compounds In Food Packaging Materials Research*	-	3.000
Congressional Add Subtotals for Project: IBMP	25.000	13.000
Project: OOO: *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*		
Congressional Add: *Rare Earth Magnets*	4.000	-

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency	Date: April 2022
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603680S *I Manufacturing Technology Program (ManTech)*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2021	FY 2022
Congressional Add: *Supply Chain For Readiness & Sustainment*	-	8.000
Congressional Add: *Rare Earth Recovery Technology*	-	2.000
Congressional Add: *Conversion Of Titanium Scrap*	-	5.000
Congressional Add: *Graphite Materials*	-	9.000
Congressional Add: *Nanostructured Iron Nitride Permanent Magnets*	-	7.000
Congressional Add: *Modeling & Simulation Competition*	-	2.000
Congressional Add Subtotals for Project: OOO	4.000	33.000
Congressional Add Totals for all Projects	29.000	46.000

Change Summary Explanation

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

FY 2023:
-Critical Chemicals: Strategic Material Related Efforts
-DLA ManTech baseline was increased $2.343 million based on internal funding reallocation decision to modernize DLA's technical data management and predictive analytics capability and lay the foundation for next generation Smart Manufacturing.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603680S / *Manufacturing Technology Program (ManTech)*	Project (Number/Name) IBMP / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*	

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
IBMP: *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*	84.905	40.864	25.763	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Improving Industrial Base Manufacturing Processes Strategic Focus Area (SFA) is an R&D effort undertaken with DLA's suppliers to reduce material costs, reduce the length and variability of production lead-times, assure DLA managed products meet performance requirements, and continuously improve quality and reliability. Benefits of this SFA include lower material costs, lower inventory levels and more predictable customer wait times, fewer quality deficiencies, and lower customer support costs. This SFA includes within its scope the Subsistence Network, the Battery Network, the Castings/Forging programs and Additive Manufacturing programs.

The Subsistence Network (SUBNET) program focuses on solutions to develop and promote manufacturing improvements in the subsistence supply chain. The program's expanded areas of interest include: combat rations, food equipment, field feeding solutions, food footprint, food innovations, food safety and defense developments, garrison feeding, nutrition and health, storage and packing solutions, surge and sustainment support, and water security. SUBNET forms a community of practice with Military Services, U.S. Department of Agriculture, Natick Soldier Research Development, and Engineering Center; Academia, and Industry to research and promote manufacturing improvements in the Subsistence Supply Chain with the goals of maximizing capability and capacity to produce, and to encourage innovation and modernization needed to leverage the latest technologies. Desired outcomes include: reduced cost, increased efficiencies, improved processes, enhanced quality, and improved surge demand capabilities.

The Casting program works to ensure a stable, reliable, and competitive domestic casting industrial base supporting the weapon system needs of the Department of Defense (DOD) and the Defense Logistics Agency (DLA). The casting program works with industry, universities, and the Casting Industry Associations to identify projects that improve the materials, processes and business practices of the nation's foundry industry. The program aligns projects with strategic issues and identified focus areas within the DLA and DOD. Guidance for these projects comes from the DLA Strategic Plan and input from the casting industry. Weapon system spare parts managed by DLA that contain castings are responsible for a disproportionate share of DLA's backorders or unfilled orders (UFOs). Cast parts are about two percent of National Stock Numbered Class IX parts but represent about five percent of all backorders, and when only the oldest backorders are considered, up to 10 percent are castings. This program includes tasks that focus on developing new capabilities in the areas of inspection, materials, processes, modeling, and design. Once developed, these capabilities will support the foundry industry, where the technologies will be tested and implemented, most often in conjunction with the casting industry associations. These advancements improve the metal casting supply chains for the DOD and the DLA to better support the warfighter. We will invest in projects aimed at reducing lead-times, reducing costs, and improving quality of castings critical to DOD weapon systems.

The Forging program works to ensure a stable, reliable, and competitive domestic forging industrial base for the weapon system needs of the Department of Defense (DOD) and the Defense Logistics Agency (DLA). Working with industry, universities, and the Forging Industry Associations to identify projects that improve the

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** IBMP / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

materials, processes and business practices of the nation's forging industry. The program aligns its projects with strategic issues and focus areas identified within the DLA and DOD. Guidance for these projects comes from the DLA Strategic Plan and input from the forging industry. Weapon system spare parts managed by DLA that contain Forgings are responsible for a disproportionate share of DLA's backorders or unfilled orders (UFOs). Forged parts are about two percent of National Stock Number (NSN) Class IX parts but represent about 5 percent of all backorders, and when only the oldest backorders are considered, up to 10 percent are forgings. This program includes tasks to develop new capabilities in the areas of inspection, materials, processes, modeling, and design. Once developed these capabilities will support the forging industry, where these technologies will be tested and implemented in conjunction with the forging industry associations. These advancements improve the forging supply chains for the DOD and the DLA to better support the warfighter. We will invest in projects aimed at reducing lead-time, reducing cost, and improving quality of forgings critical to DOD weapon systems.

The Battery Network (BATTNET) program objective is to develop the next generation of battery manufacturing technologies for cost and price efficiency, longer shelf life, and lighter batteries with higher energy. BATTNET conducts R&D initiatives to address sustainment gaps and bridge technical solutions into higher a Manufacturing Readiness Level (MRL) for specific groups of batteries. BATTNET also focuses on projects to develop the production capability for advanced lithium-based non-rechargeable and rechargeable batteries to ensure the prompt and sustained availability, quality, and affordability of Service approved batteries. Desired outcomes include: streamlined inventory and associated cost reductions through standardization and improved distribution practices; resolved obsolescence issues; addressed surge and sustainment issues; enhanced security of supply chain; increased competition and manufacturing base; reduced per unit battery cost; and leveraged Service-level (Army, Navy, Air Force) and other governmental (DOE, DOT, NASA) R&D efforts to insert new technology and practices into the existing DLA battery inventory.

The Additive Manufacturing (AM) program objective is to establish AM as an effective alternative to conventional manufacturing and document the process for AM benefits. DLA is pursing all AM technology as a lead-time and inventory reduction enabler. The AM effort pursues alternate means of supply for products that are otherwise non-procurable or susceptible to procurement issues due to an unresponsive manufacturing vendor base. The AM effort includes the identification of AM candidates among the population of products that are needed but hard to obtain, costly or have long manufacturing lead times. The AM effort requires management of 3D digital technical and manufacturing data. In addition, the AM effort includes the development of the processes that will tie the designers, engineers, maintainers, logisticians, procurement managers and the vendor base into a seamless AM procurement stream. Potential benefits include products that can address an unfulfilled Warfighter readiness need by reducing production lead times, production costs, storage costs, transportation costs and in some cases fuel consumption due to lighter design and material options. DLA R&D will leverage these efforts with Industry, Academia and ongoing Military Service-level agreements (Army, Navy, Marine Corps, Air Force), Oak Ridge National Laboratory (ORNL) and the Department of Energy.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Improving Industrial Base Manufacturing Processes (formerly Material Availability)	15.864	12.763	-
Description: The Subsistence Network (SUBNET) program conducted research, development, test and evaluation on short-term projects to improve the subsistence supply chain. The SUBNET program worked with community partners (military services, industry, and academia) to leverage the latest technologies and innovations for the R&D projects. SUBNET researched and executed projects in FY 2021 regarding modernization and readiness analysis of a joint food management system; subsistence readiness analysis and innovation assessment of the supply chain; pre and polyfluoroalkyl (PFAS) in meals, ready-to-eat			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** IBMP / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023

packing materials; develop and test laminate structures in hot sauce pouches for MREs; and blockchain application for outside of continental U.S. subsistence prime vendor supply chain. The program also continued to work with small business innovation research (SBIR) subsistence topics such as the use of cold plasma fog mist to disinfect personnel protective equipment and cold plasma technology to extend the shelf life of fresh fruits and vegetables and collaborate with the Defense Advanced Research Projects Agency on future projects for synergy and as a potential transition partner.

The Casting program continued to monitor awarded projects that research, develop and deploy innovative and technical solutions to ensure a viable and competitive domestic industrial base. The program works to maintain its alignment with the DLA Strategic plan and U.S. Casting Industry Roadmap. Our projects focus on improving manufacturing processes such as die coatings and integrated sensors and technologies that include simulation modeling and 3D printing of casting molds and cores, and workforce development to secure a sustainable supply chain for DLA and the DOD. These efforts included webinars for both DLA employees and the casting industry, on-site and virtual seminars or DLA/DOD employees, resources that assisted suppliers and DLA with questions regarding castings, and directed active DLA solicitations containing castings to capable suppliers that increased visibility and reduced no-bid situations.

The Forging program monitored projects awarded under the Broad Agency Announcement (BAA) offered in FY 2020 and awarded in September 2020. There was a total of three new contracts awarded which include seven new projects, The projects included a focus on exploring alternative forging manufacturing methods, materials to reduce production lead-time and costs, modeling and simulation software improvements and enhancements and improvements to post processing methods. We continued to see positive results from these projects, Ceramic Coatings for Forging Furnaces reported a 42 percent reduction in Natural Gas usage and a 64 percent reduction in recovery time for a forging furnace which was coated as part of this project. In FY 2020 the DLA Forging R&D funding baseline and out years were reduced by approximately 25 percent, which reduced the number of projects awarded in FY 2020. These projects will be in alignment with the needs of the DOD and DLA aimed and supporting and fulfilling the needs of the warfighter, while working to maintain its alignment with the DLA Strategic plan and U.S. Casting Industry Roadmap A few projects successfully finished and continue working on implementing the new technologies, such as the mobile Intensive Quench project. As well as the Innovations in Repair of Forging dies project that finished and will continue working with their industry partners to transition this technology to the forging industry.

The Battery Network (BATTNET) program continued projects for improving the production readiness and technology transition for soldier and system batteries within the DLA supply chain. The program prototyped and tested several versions of Bipolar lead-acid technology in major system formats to reduce battery cost and weight, improve battery energy and power, and extend battery shelf life and operational life – a new effort was launched for aviation batteries. The program continued a major project for improving the capacity and capabilities of lithium anode production for current non-rechargeable batteries and future rechargeable

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** IBMP / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023

batteries. The program continued managing projects for transitioning high value solid-state electrolyte, as well as UV-curable polymer, technology into key soldier and system lithium-ion batteries. The program continued to initiate and manage several SBIR projects in advanced lithium-ion battery manufacturing, recycling, and rapid materials synthesis.

The Additive Manufacturing (AM) program, using market research, requests for information/proposals, Broad Agency Announcements (BAA), DLA R&D funded analysis of alternatives for the best cognitive computing solutions to integrate information from several logistics, engineering, legal, and supplier data sources into an efficient AM decisional framework. The AM Initial General Acceptance (AMIGA) tool was developed to assist DLA procurement and engineering personnel in making a AM procurement decisions by automating the initial assessment of DLA-managed items, particularly hard-to-procure items, based on item characteristics, business, logistics, and additive manufacturing technology criteria. While AMIGA demonstrated a useful initial search capability for potential AM procurement candidates, the DLA Technical & Quality Assurance Division, after thorough consideration, was not able to approve full transition into operations at this time due to certain existing constraints and emerging risks, such as funding availability and integration with major DLA IT systems as modernization initiatives are being developed. Nevertheless, these analytics efforts helped to identify unseen patterns in the manufacturing data that will help shape an efficient AM distributive manufacturing ecosystem. The Additive Manufacturing (AM) program also financed collaborative technical efforts from the military departments, industry, and academic institutions that enhance the customer engagement with the AM product management workflows. Overall DLA Enterprise AM efforts to identify the best AM applications to achieve precise robustness-repeatability-reproducibility of part fabrication using an AM technical data package in a distributed manufacturing setting were impacted by the reduction of approximately $0.943 million resulting from overall ManTech $3.020 million in directed reductions.

FY 2022 Plans:

The Subsistence Network (SUBNET) program will continue to research and execute short-term innovative projects to improve the subsistence supply chain in FY 2022. The SUBNET program will incorporate emerging technologies to address stakeholders' requirements as well as leverage supply chain innovations, best practices, and industry trends. The SUBNET program will conduct pilot test in the areas of modernization and readiness analysis of joint food management system and improving subsistence visibility through enhancing receipting and barcoding at an OCONUS location. The SUBNET plans to conduct research in FY 2022 regarding data analytics, wireless sensor mesh technology, and robotic automation in military dining facilities. The program will also pursue small business innovation research topics in subsistence and work with community partners (military services, academia, and industry) to conduct research and test and evaluate initiatives in the subsistence supply chain.

The Casting program will continue to monitor awarded projects that research, develop and deploy innovative and technical solutions to ensure a viable and competitive domestic industrial base. The program also plans to solicit for new projects to start in FY 2022 as existing projects wind down, are completed and transitioned. The Casting program will continue working with

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** IBMP / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Academia, industry, and industry associations to continually identify future development and technical needs in alignment with the DOD and DLA to include appropriate strategic plans and roadmaps. The Forging program will continue to monitor projects that research, develop and deploy innovative and technical solutions to ensure a viable and competitive domestic industrial base. These projects focus on improving manufacturing processes and alternative forging manufacturing methods, materials to reduce production lead-time and costs modeling and simulation software improvements and enhancements and improvements to post processing methods. These projects align with the needs of the DOD and DLA aimed and supporting and fulfilling the needs of the warfighter. The Battery Network (BATTNET) program will continue to execute projects for improving the production readiness, transition, and standardization of soldier and system batteries within the DLA supply chain. Projects will leverage new battery manufacturing technologies for the supply chain that have been developed by industry – advanced electrodes production, low-cost materials production or recycling, and advanced performance cells. The program intends to leverage deep-discharge, long cycle life, safe lithium-ion capabilities with the US Military Services to replace obsolete nickel-cadmium batteries in naval and aviation systems. And the program will continue the manufacturing technology projects in bipolar lead-acid batteries and lithium-ion batteries for the benefit of the Defense supply chain. The DLA R&D Additive Manufacturing (AM) program will continue to collaborate with the Military Services, DLA's Process Owners and Major Subordinate Commands (MSC) to identify technologies that assist with AM enterprise-wide processes that align DLA's identification of hard-to-source parts requirements with MILSVC cognizant engineer authorities and AM manufacturing capabilities in order to obtain qualified AM parts that support a DLA customer. The convergence of authoritative data in the DLA Joint AM Model Exchange (JAMMEX) platform will improve DLA's position to exercise quality assurance of AM parts flowing into the DOD supply chains. The DLA R&D AM projects will explore innovative remote inspection capabilities that enable interoperable quality control inspections among DLA, the Military Service cognizant engineers and the manufacturing base. The convergence of automated requirements' tools based on DOD consensus of AM risk categorization criteria, JAMMEX authoritative data, and remote inspection technologies can render repeatable and accelerated qualifications processes. Reduction of the AM baseline will commensurately impact the AM Program's ability to produce solutions for enterprise processes and procedures needed to integrate AM into the supply chain and transition benefits and findings of AM R&D projects into the DLA supply chain processes. With limited budget, the AM R&D program can only perform sub-optimized part to part projects under the authority of established support agreements with our Warfighting customers and partners. ***FY 2022 to FY 2023 Increase/Decrease Statement:***			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** IBMP / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Funding and efforts move to the Industrial Base and Aging Weapon System Support Line of Effort (R&D LOE 1) focused on innovative and proactive technology solutions to ensure a robust, reliable industrial base that provides affordable and previously hard-to-procure critical parts for DOD weapon systems.			
Accomplishments/Planned Programs Subtotals	15.864	12.763	-

	FY 2021	FY 2022
Congressional Add: Improve Steel Performance Initiative in Castings ***FY 2021 Accomplishments:*** Continued efforts that began under the FY 2020 Steel Performance Initiative that includes numerous projects within the following areas of focus: Steel Alloy Development and Manufacturing Technology; Integrated Process and Performance Modeling; Advanced Testing & Qualification; Improved Steel Casting Tooling; and Optimized Processing of Steel Materials. ***FY 2022 Plans:*** Steel Technology Advanced Research (STAR): Develop hybrid and Industry 4.0 manufacturing technologies along with modeling and quantitative nondestructive testing (QNDT) to advance predictive performance design.	10.000	10.000
Congressional Add: Supply Chain adoption of additive manufacturing, automation, and robotics in Castings ***FY 2021 Accomplishments:*** In February 2022, the contract was awarded to begin work on documenting the benefits and applications of automation, robotics, and additive manufacturing, particularly to publicize to small-to-medium enterprises to ensure the technology is better understood and utilized in the optimal capacity.	10.000	-
Congressional Add: Additive Manufacturing Castings Model ***FY 2021 Accomplishments:*** In February 2022, the contract was awarded to begin work on documenting the benefits and methodology of Additive Manufacturing (AM) applications to the initial casting designs which will be used to publicize to the casting industry.	5.000	-
Congressional Add: PFAS Compounds In Food Packaging Materials Research ***FY 2022 Plans:*** Determine where PFAS is originating in the assembly process through the analysis of the raw material (e.g., film) used for Meals Ready to Eat pouches and throughout the assembly line.	-	3.000
Congressional Adds Subtotals	25.000	13.000

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** IBMP / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603680S / *Manufacturing Technology Program (ManTech)*	Project (Number/Name) AAA / *Maintaining Viable Supply Sources (formerly High Quality Sources)*	

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
AAA: *Maintaining Viable Supply Sources (formerly High Quality Sources)*	64.853	15.864	16.950	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Maintaining Viable Supply Sources (MVSS) Strategic Focus Area (SFA) consists of projects undertaken to assure that the industrial base can respond to DLA requirements and DLA can fill military customers' material requirements reliably and consistently. Benefits include eliminating cancelled requisitions returned to customers as "non-procurable." This strategic focus area includes within its scope the Advanced Microcircuit Emulation (AME) program.

The Program Roadmap has two major thrusts areas: Digital Microcircuits and Linear/Analog Microcircuits. The program has several projects addressing specific classes of obsolescent microcircuit technologies. Over the past several years, obsolescence in this class of microcircuits has greatly increased and has become a significant concern. These are classes of microcircuits that are expected to become non-procurable in FY 2020 and beyond. Without the technologies planned on the AME Roadmap, DLA will not be able to support DOD's requirements for high quality spare parts for critical electronic systems and subsystems.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Maintaining Viable Supply Sources (formerly High Quality Sources)	15.864	16.950	-
Description: The Advanced Microcircuit Emulation (AME) program completed and transitioned its first Linear/Analog technology project, 20 Volt Operational Amplifier, into full scale production. It also completed and transitioned additional digital technology projects into full scale production. The first addresses TTL compatible CMOS microcircuits and the second addresses Dual-Port Memory microcircuits. AME continued development of Additive Manufacturing techniques to address Microcircuit Cases. It began additional Linear/Analog emulation projects for types/groups of parts, prioritized based on customer requirements.			
FY 2022 Plans: The Advanced Microcircuit Emulation (AME) program will continue planning for the specific emulation technology implementations to support specific device family groups in consonance with Customer and Agency requirements. It will begin developing dual-voltage digital microcircuit technology to support re-hosting Field-Programmable Gate Array (FPGA) microcircuits. It will continue additional Linear/Analog and Digital emulation projects for types/groups of parts, prioritized based on customer requirements. It will continue development of Additive Manufacturing techniques to address obsolescence in Microcircuit Cases.			
FY 2022 to FY 2023 Increase/Decrease Statement:			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** AAA / *Maintaining Viable Supply Sources (formerly High Quality Sources)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Funding and efforts move to the Industrial Base and Aging Weapon System Support Line of Effort (R&D LOE 1) focused on innovative and proactive technology solutions to ensure a robust, reliable industrial base that provides affordable and previously hard-to-procure critical parts for DOD weapon systems.			
Accomplishments/Planned Programs Subtotals	15.864	16.950	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603680S / *Manufacturing Technology Program (ManTech)*	Project (Number/Name) OOO / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*	

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
OOO: *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*	21.648	9.904	38.549	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Improving Technical and Logistics Information (ITLI) SFA projects improve and facilitate the communication of technical and logistics information among industry, DLA's military customers and DLA. This SFA includes the Military Unique Sustainment Technology (MUST), the Defense Logistics Information Research (DLIR), and the Emergent Manufacturing Technology (EMT) portfolios within its scope.

The Military Unique Sustainment Technology (MUST) program addresses Government Accountability Office (GAO) Report 12-707 recommendations for DOD to establish a "knowledge-based approach" to define, communicate, and collaborate on military unique combat uniforms and individual equipment (CUIE) requirements. DLA has the responsibility to manage and maintain the technical requirements among the Services and the Defense Industrial Base. Currently there is no common environment for collaborating on new requirements among the stakeholders. The strategic objective of the DLA MUST program is to identify, develop, and adopt technologies that can significantly improve the joint process from transitioning new item development to DLA sustainment and operations. The Program focuses on technologies that will transform the military CUIE supply chain from an "electronic paper" (i.e. PDF/MS Word) based manual environment, into a knowledge-based model driven environment. This approach will result in seamlessly communicating military unique technical requirements throughout the end-to-end supply chain, leading toward a Model Based Enterprise.

The Defense Logistics Information Research (DLIR) program researches core technologies to improve the quality, security, and interoperability of logistics data acquisition and management to enable and streamline DLA operations. DLA enables transformation of business practices and methodologies as the data for weapons systems evolve from traditional formats and delivery methods (such as two-dimensional images and PDF formats) to newer, more innovative methods (such as three-dimensional solid models, object-oriented databases, service-oriented architecture (SOA) and Web 3C standards). This transformational shift for DLA is driven by the Model-Based Enterprise (MBE) approach, the way industry is delivering design and development data for weapon systems to the Military Services and the way the Military Services in turn manage and provide the data to DLA. DLA Logistics Operations, DLA Acquisition, DLA Tech/Quality, and DLA's Major Subordinate Commands (MSCs) are key stakeholders in the DLIR initiatives to modernize the representation and delivery of weapons systems data.

The EMT program addresses emerging and out of cycle requirements that always occur as DLA strives to maintain readiness of the aging weapon systems.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Improving Technical and Logistics Information (formerly Industry and Customer Collaboration	5.904	5.549	-

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** OOO / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023

Description: Military Unique Sustainment Technology (MUST) I contract ended in June 2021. It delivered two working prototypes and accompanying documentation ready to transition from R&D: Supply Request Package Tool and Source Sampling Test Reporting Tool. The Supply Request Package (SRP) Tool captures all new item requirements information. The SRP Tool has been adopted by all the Military Services and other DLA customers for new item introduction to DLA sustainment. The Source Sampling Tool captures the test results from the independent commercial laboratories used by Troop Support Clothing and Textile prime contractors. In addition, an initial prototype of the Digital Model library (DML) was developed. The DML is the repository for CUIE digital technical data models and related industry standard models. Competitive contract awards for MUST II, the MUST I follow-on, were made in Q2, FY 2021.

The Defense Logistics Information Research (DLIR) program continued the Connecting the Model-Based Enterprise (MBE) project to modernize the process to obtain current Technical Data Packages (TDPs) directly from the Product Lifecycle Management (PLM) systems of the Military Services' ESAs and PMOs. DLIR also developed standard guidance for Military Service organizations, including the ESAs and PMOs, to guide and influence generation of 3D, model based TDPs that will support DLA and its supplier needs. DLIR explored the ability of commercial Digital Rights Management (DRM) tools and techniques to improve the security of TDPs and support the eventual development of functional requirements for the "Catalog of the Future" (COTF) by identifying and prototyping new cleansing tools and methods while simultaneously cleansing data. DLIR continued support to DLA's Technical Data Management Transformation (TDMT) efforts to determine the future state IT architecture design and continue to collaborate with USACE to develop a cyber-physical model that will evaluate the resiliency of OT systems after a cyber-attack. Additionally, DLIR began efforts in building the digital thread partnering with the Air Force KC135 and the Army's Paladin Artillery Systems.

The Emerging Manufacturing Technology (EMT) program invested in Advanced Manufacturing solutions for DLA's support to DOD and Federal Government contingency operations, such as PPE and decontamination products and materials for COVID-19 response. In addition, EMT provided funding Critical to the transition and commercialization of successful Small Business Innovation Research (SBIR) projects such as emerging magnetic braking technologies, addressing strategic materials shortage/ risk, and advancements in Digital Manufacturing.

FY 2022 Plans:
The Military Unique Sustainment Technology (MUST) II focus is to integrate the MUST I developed tools into the DML using an Application Program Interface (API). The SpecFlow tool will be a new development for capturing and managing Interim Changes (IC) to the technical requirements. MUST II plans to develop more powerful AI based tools to incorporate ICs into the base models, and to extract technical requirements from the digital models. MUST II will work with the Services to promote the use

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** OOO / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
of data formats compatible with the digital document model paradigm. The final development of the DML will be completed and DML document models will become the authoritative source for CUIE technical requirements and provide common visibility to all stakeholders. These models can be efficiently managed (queried, analyzed, updated) and will be capable of supplying data directly to CUIE test plans and manufacturing processes. Joint processes will be reengineered to take advantage of the digital model data. For example, use in the Product Quality Deficiency Report. Prototype tools and interfaces will also be developed to improve digital model utility for the industrial base. The Defense Logistics Information Research (DLIR) program will continue to support DLA's Technical Data Management Transformation (TDMT) efforts to determine IT architecture needs and to ensure DLA's MBE architecture meets/exceeds DOD compliance objectives and integrates with Military Services irrespective of platforms. DLIR will also explore Digital Manufacturing Enterprise models that shift procurement strategy orientation from items to on-demand manufacturing capacity. This contracted capacity can be tapped repeatedly on demand using an existing procurement process, rather than triggering multiple individual processes. DLIR will continue exploring Digital Rights Management (DRM) tools and techniques to improve the security of TDPs and support the eventual development of functional requirements for the "Catalog of the Future" (COTF) by identifying and prototyping new cleansing tools and methods while simultaneously cleansing data. Finally, DLIR will collaborate with MxD focusing on cybersecurity and building the digital thread continuing efforts leveraging the Air Force KC135 and the Army's Paladin Artillery Systems to include converting selected NSNs to 3D, model-based formats and providing access to a low-cost, cloud-based, Product Lifecycle Management (PLM)/Product Data Management (PDM) system(s). The EMT program will continue to enable DLA's investigation of new disruptive technology advances that may be implemented in the nearer term, without degrading well established program efforts. This program enables the Agency to advance those technologies sooner in order to provide to the warfighter earlier. Small Business Innovation Research (SBIR) Phase III efforts (which cannot be funded with SBIR funds) are a prime example of activities that will be financed with SBIR funds, examples include emerging magnetic braking technologies, and addressing strategic materials shortage/risk. Efforts will continue to advance Digital Manufacturing by developing a comprehensive approach to take advantage of integrated, computer-based systems of simulation, three-dimensional (3D) visualization, analytics and various collaboration tools to create and manufacture products to support the warfighter. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Funding and efforts move to the the 3D Technical Data Modernization / Model Based Enterprise LOE (R&D LOE 2) focused on three-dimensional technical data and knowledge-based tools to transform and streamline supply system responsiveness for DLA-managed commodities.			
Accomplishments/Planned Programs Subtotals	5.904	5.549	-

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** OOO / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*

	FY 2021	FY 2022
Congressional Add: Rare Earth Magnets ***FY 2021 Accomplishments:*** Explored domestic sources to build domestic capacity for recycled rare earth magnets critical to weapon system sustainment which will reduce foreign dependence, and supply chain vulnerability to price increases and access.	4.000	-
Congressional Add: Supply Chain For Readiness & Sustainment ***FY 2022 Plans:*** Significantly increase the number of small-to-midsize manufacturers (SMMs) and their adoption of digital manufacturing, automation, and robotics metal-casting (Industry 4.0) technologies improving the security and resiliency of the defense industrial base.	-	8.000
Congressional Add: Rare Earth Recovery Technology ***FY 2022 Plans:*** Demonstrate a process of recovering Rare Earth Elements (REEs) from electronic waste(e-waste) materials from various commercially available sources, including DOD e-waste. Successful completion of this project would assist DOD in achieving its long-term goal of reducing foreign reliance on REEs.	-	2.000
Congressional Add: Conversion Of Titanium Scrap ***FY 2022 Plans:*** Demonstrate the concept of converting titanium scrap to premium powder products for 3D printing and powder metallurgy. Titanium is a strategic material and critical for DOD applications.	-	5.000
Congressional Add: Graphite Materials ***FY 2022 Plans:*** Support domestic production of synthetic graphite precursor material for batteries and other military applications. This would help in supporting US graphite industry and securing DOD supply chain for various weapon systems.	-	9.000
Congressional Add: Nanostructured Iron Nitride Permanent Magnets ***FY 2022 Plans:*** Advance the technology and manufacturing readiness of non-rare-earth containing iron nitride permanent magnets for use in military electric components and systems.	-	7.000
Congressional Add: Modeling & Simulation Competition ***FY 2022 Plans:*** DLA Legislative Affairs submitted clarification (intent & recipient) request to the Office of the Under Secretary of Defense for Acquisition and Sustainment (OUSD (A&S)) on 3/23/2022 for incorporation into	-	2.000

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** OOO / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*

	FY 2021	FY 2022
the Comptroller's request to the HAC and SAC. As clarification is received, DLA will provide statement detailing execution plans.		
Congressional Adds Subtotals	4.000	33.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603680S / *Manufacturing Technology Program (ManTech)*	Project (Number/Name) IBA / *Industrial Base & Aging Weapon System Support*	

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
IBA: *Industrial Base & Aging Weapon System Support*	-	0.000	0.000	35.222	-	35.222	35.509	36.352	37.064	37.809	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Industrial Base (IB) and Aging Weapon System Support Line of Effort (LOE 1) seeks to implement innovative and proactive technology solutions to ensure a robust, reliable industrial base that provides affordable and previously hard-to-procure critical parts for DOD weapon systems through the following objectives:

1. Viable and Responsive Industrial Base: maximize Defense Industrial Base capability and capacity and improve availability, quality, and affordability to support the Warfighter.
2. Obsolescence Solutions: establish a trusted manufacturing capability for qualified microcircuits to support DOD weapon system lifecycles.
3. Advanced Manufacturing: leverage advanced manufacturing capabilities to introduce and integrate additive and advanced manufacturing concepts into the DOD supply chain.

The portfolios within the IB and Aging Weapons System Support LOE include food-service supply chain solutions (Subsistence Network), Castings (Procurement Readiness Optimization—Advanced Casting Technology), Forgings (Procurement Readiness Optimization—Forging Advanced System Technology), Batteries (Battery Network), Additive Manufacturing (AM), and Advanced Microcircuit Emulation (AME).

The Subsistence Network (SUBNET) program focuses on solutions to develop and promote manufacturing improvements in the subsistence supply chain. The program's expanded areas of interest include: combat rations, food equipment, field feeding solutions, food footprint, food innovations, food safety and defense developments, garrison feeding, nutrition and health, storage and packing solutions, surge and sustainment support, and water security. SUBNET forms a community of practice with Military Services, U.S. Department of Agriculture, Natick Soldier Research Development, and Engineering Center; Academia, and Industry to research and promote manufacturing improvements in the Subsistence Supply Chain with the goals of maximizing capability and capacity to produce, and to encourage innovation and modernization needed to leverage the latest technologies. Desired outcomes include: reduced cost, increased efficiencies, improved processes, enhanced quality, and improved surge demand capabilities.

The Casting program works to ensure a stable, reliable, and competitive domestic casting industrial base supporting the weapon system needs of the Department of Defense (DOD) and the Defense Logistics Agency (DLA). The casting program works with industry, universities, and the Casting Industry Associations to identify projects that improve the materials, processes and business practices of the nation’s foundry industry. The program aligns projects with strategic issues and identified focus areas within the DLA and DOD. Guidance for these projects comes from the DLA Strategic Plan and input from the casting industry. Weapon system spare parts managed by DLA that contain castings are responsible for a disproportionate share of DLA’s backorders or unfilled orders (UFOs). Cast parts are about two percent of National Stock Numbered Class IX parts but represent about five percent of all backorders, and when only the oldest backorders are considered, up to 10 percent are castings. This program includes tasks that focus on developing new capabilities in the areas of inspection, materials, processes, modeling, and design. Once

developed, these capabilities will support the foundry industry, where the technologies will be tested and implemented, most often in conjunction with the casting industry associations. These advancements improve the metal casting supply chains for the DOD and the DLA to better support the warfighter. We will invest in projects aimed at reducing lead-time, reducing cost, and improving quality of castings critical to DOD weapon systems.

The Forging program works to ensure a stable, reliable, and competitive domestic forging industrial base for the weapon system needs of the Department of Defense (DOD) and the Defense Logistics Agency (DLA). Working with industry, universities, and the Forging Industry Associations to identify projects that improve the materials, processes and business practices of the nation's forging industry. The program aligns its projects with strategic issues and focus areas identified within the DLA and DOD. Guidance for these projects comes from the DLA Strategic Plan and input from the forging industry. Weapon system spare parts managed by DLA that contain Forgings are responsible for a disproportionate share of DLA's backorders or unfilled orders (UFOs). Forged parts are about two percent of National Stock Number (NSN) Class IX parts but represent about five percent of all backorders, and when only the oldest backorders are considered, up to 10 percent are forgings. This program includes tasks to develop new capabilities in the areas of inspection, materials, processes, modeling, and design. Once developed these capabilities will support the forging industry, where these technologies will be tested and implemented in conjunction with the forging industry associations. These advancements improve the forging supply chains for the DOD and the DLA to better support the warfighter. We will invest in projects aimed at reducing lead-time, reducing cost, and improving quality of forgings critical to DOD weapon systems.

The Battery Network (BATTNET) program objective is to develop the next generation of battery manufacturing technologies for cost and price efficiency, longer shelf life, and lighter batteries with higher energy. BATTNET conducts R&D initiatives to address sustainment gaps and bridge technical solutions into higher a Manufacturing Readiness Level (MRL) for specific groups of batteries. BATTNET also focuses on projects to develop the production capability for advanced lithium-based non-rechargeable and rechargeable batteries to ensure the prompt and sustained availability, quality, and affordability of Service approved batteries. Desired outcomes include: streamlined inventory and associated cost reductions through standardization and improved distribution practices; resolved obsolescence issues; addressed surge and sustainment issues; enhanced security of supply chain; increased competition and manufacturing base; reduced per unit battery cost; and leveraged Service-level (Army, Navy, Air Force) and other governmental (DOE, DOT, NASA) R&D efforts to insert new technology and practices into the existing DLA battery inventory.

The Additive Manufacturing (AM) program objective is to establish AM as an effective alternative to conventional manufacturing and document the process for AM benefits. DLA is pursing all AM technology as a lead-time and inventory reduction enabler. The AM effort pursues alternate means of supply for products that are otherwise non-procurable or susceptible to procurement issues due to an unresponsive manufacturing vendor base. The AM effort includes the identification of AM candidates among the population of products that are needed but hard to obtain, costly or have long manufacturing lead times. The AM effort requires management of 3D digital technical and manufacturing data. In addition, the AM effort includes the development of the processes that will tie the designers, engineers, maintainers, logisticians, procurement managers and the vendor base into a seamless AM procurement stream. Potential benefits include products that can address an unfulfilled Warfighter readiness need by reducing production lead times, production costs, storage costs, transportation costs and in some cases fuel consumption due to lighter design and material options. DLA R&D will leverage these efforts with Industry, Academia and ongoing Military Service-level agreements (Army, Navy, Marine Corps, Air Force), Oak Ridge National Laboratory (ORNL) and the Department of Energy.

Advanced Microcircuit Emulation (AME) program Roadmap has two major thrusts areas: Digital Microcircuits and Linear/Analog Microcircuits. The program has several projects addressing specific classes of obsolescent microcircuit technologies. Over the past several years, obsolescence in this class of microcircuits has greatly

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** IBA / *Industrial Base & Aging Weapon System Support*

increased and has become a significant concern. These are classes of microcircuits that are expected to become non-procurable in FY 2020 and beyond. Without the technologies planned on the AME Roadmap, DLA will not be able to support DOD's requirements for high quality spare parts for critical electronic systems and subsystems.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Industrial Base (IB) and Aging Weapon System Support Line of Effort (R&D LOE 1)	0.000	-	35.222
Description: Funding and efforts for the Industrial Base and Aging Weapon System Support Line of Effort (R&D LOE 1) begins in FY 2023.			
FY 2023 Plans: The Subsistence Network (SUBNET) program will continue to develop and promote manufacturing improvements with R&D projects that leverage emerging technologies and innovations. The SUBNET program will work to improve as well as incorporate best practices and industry trends discovered through research that are crucial to the subsistence supply chain. SUBNET plans to research and execute projects in FY 2023 in the areas of modernization and readiness analysis for joint food management phase V, data analytics in the subsistence supply chain, research innovative commercial off the shelf food items, deployable group ration assembly/kitting system for unitized group rations and continued piloting the improving subsistence visibility project. The program will also continue to pursue Small Business Innovation Research (SBIR) topics in Subsistence. The Casting program will work to maintain its alignment with the DLA Strategic plan and U.S. Casting Industry Roadmap. These provide guidance as to where the focus of development should be. The casting program will continue to focus on key areas of need which include workforce development to help sustain a stable supply chain for DLA, modeling and simulation tools, die lubricants and coatings to increase quality and decrease environmental impacts and automation and robotics to reduce lead time and increase safety. The Casting program will continue to monitor projects that are awarded in FY 2022 that research, develop and deploy innovative and technical solutions to ensure a viable and competitive domestic industrial base. The Casting program works with Academia, industry, and industry associations to continually identify future development and technical needs in alignment with the DOD and DLA. The Forging program will continue to monitor projects that research, develop and deploy innovative and technical solutions to ensure a viable and competitive domestic industrial base. These projects focus on improving manufacturing processes and alternative forging manufacturing methods, materials to reduce production lead-time and costs, modeling and simulation software improvements and enhancements and improvements to post processing methods. These projects align with the needs of the DOD and DLA aimed and supporting and fulfilling the needs of the warfighter. The Battery Network (BATTNET) program will continue to execute projects for improving the production readiness, transition, and standardization of soldier and system batteries within the DLA supply chain. Projects will leverage new battery manufacturing			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** IBA / *Industrial Base & Aging Weapon System Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
technologies for the supply chain that have been developed by industry – advanced electrodes production, low-cost materials production or recycling, and advanced performance cells. The Additive Manufacturing (AM) program will use the lessons learned during the Joint Additive Manufacturing Acceptability (JAMA) efforts in the areas of AM parts prioritization, data formats, acceptability criteria and leverage emerging digital business practices, stemming from the information technology modernization efforts in DLA to engage in the testing and prototyping of customer engagement technology peripheral digital services offerings to address the requirements generated at the convergences of the MILSVC digital experiences and DLA digital operations in order to adjust DLA's business models. DLA R&D AM will also launch the needed test beds to propel the expansion of the JAMMEX capability to include vendor 3D models (industry developed) to establish a repeatable process for AM vendor bids. The Advanced Microcircuit Emulation (AME) program will continue to develop its long-term technology roadmap. It will also continue planning for the specific emulation technology implementations to support specific device family groups in consonance with Customer and Agency requirements. It will continue to develop capabilities in digital and analog/linear technologies. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** -Funding and efforts for the Industrial Base and Aging Weapon System Support Line of Effort (R&D LOE 1) begins in FY 2023 focused on innovative and proactive technology solutions to ensure a robust, reliable industrial base that provides affordable and previously hard-to-procure critical parts for DOD weapon systems. -Additionally, the overall R&D LOE 1 baseline was increased by approximately $1.500 million across FY 2023 - FY 2027 based on internal funding reallocation decision to modernize DLA's technical data management and predictive analytics capability and lay the foundation for next generation Smart Manufacturing.			
Accomplishments/Planned Programs Subtotals	0.000	-	35.222

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603680S / *Manufacturing Technology Program (ManTech)*	Project (Number/Name) TDM / *3D Tech Data Modernization / Model Based Enterprise*	

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
TDM: *3D Tech Data Modernization / Model Based Enterprise*	-	0.000	0.000	10.944	-	10.944	9.648	9.821	10.002	10.108	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Three-dimensional (3D) Technical Data Modernization (TDM) / Model-Based Enterprise (MBE) (R&D LOE 2) includes efforts to improve and facilitate the exchange of engineering and logistics information among DLA, the Military Services, DLA industry partners and DLA customers. This LOE includes the Military Unique Sustainment Technology (MUST), the Defense Logistics Information Research (DLIR), and the Emergent Manufacturing Technology (EMT) portfolios. A primary focus of this SFA is to capitalize on the emerging "Model Based Enterprise" paradigm and the semantic web as an enabler to a logistics system that is smart and connected up and down the supply chain and across all DLA Customers and suppliers. A major focus is to transform DOD engineering data from two-dimensional paper-based products to three-dimensional computer-based models, and to develop processes to move from "electronic paper" (i.e. PDF files) to technical data files that can interface directly with industries' engineering systems. The benefits include shorter product introduction cycles, lower set up-costs for parts production and more economical small batch production. Objectives for this LOE include:

1. Transform technical data into modern, machine-usable, neutral formats: support DOD's digital modernization efforts and provide significant readiness improvements.
2. Create a model-enabled knowledge base shared among DLA, the Military Services and industry: streamline the delivery of accurate requirements and high-quality material and end-items throughout the supply chain.

The Military Unique Sustainment Technology (MUST) program addresses Government Accountability Office (GAO) Report 12-707 recommendations for DOD to establish a "knowledge-based approach" to define, communicate, and collaborate on military unique combat uniforms and individual equipment (CUIE) requirements. DLA has the responsibility to manage and maintain the technical requirements among the Services and the Defense Industrial Base. Currently there is no common environment for collaborating on new requirements among the stakeholders. The strategic objective of the DLA MUST program is to identify, develop, and adopt technologies that can significantly improve the joint process from transitioning new item development to DLA sustainment and operations. The Program focuses on technologies that will transform the military CUIE supply chain from an "electronic paper" (i.e. PDF/MS Word) based manual environment, into a knowledge-based model driven environment. This approach will result in seamlessly communicating military unique technical requirements throughout the end-to-end supply chain, leading toward a Model Based Enterprise.

The Defense Logistics Information Research (DLIR) program researches core technologies to improve the quality, security, and interoperability of logistics data acquisition and management to enable and streamline DLA operations. DLA enables transformation of business practices and methodologies as the data for weapons systems evolve from traditional formats and delivery methods (such as two-dimensional images and PDF formats) to newer, more innovative methods (such as three-dimensional solid models, object-oriented databases, service-oriented architecture (SOA) and Web 3C standards). This transformational shift for DLA is driven by the Model-Based Enterprise (MBE) approach, the way industry is delivering design and development data for weapon systems to the Military Services and the way the

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** TDM / *3D Tech Data Modernization / Model Based Enterprise*

Military Services in turn manage and provide the data to DLA. DLA Logistics Operations, DLA Acquisition, DLA Tech/Quality, and DLA's Major Subordinate Commands (MSCs) are key stakeholders in the DLIR initiatives to modernize the representation and delivery of weapons systems data.

The EMT program addresses emerging and out of cycle requirements that always occur as DLA strives to maintain the readiness of the aging weapon systems.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Three-dimensional (3D) Technical Data Modernization (TDM) / Model-Based Enterprise (MBE) (R&D LOE 2)	0.000	-	10.944
Description: Funding and efforts for the Three-dimensional (3D) Technical Data Modernization (TDM) / Model-Based Enterprise (MBE) (R&D LOE 2) begins in FY 2023. ***FY 2023 Plans:*** The Military Unique Sustainment Technology II (MUST II) program will deliver the SpecFlow tool working prototype and the DML working prototype for transition into an operational capability. Technical data content in the DML will continue to be expanded and the AI needed to make the DML information available throughout the supply chain will be enhanced. The major effort of integration into Military Services development organizations and the industrial base will be undertaken. The Defense Logistics Information Research (DLIR) program will continue to support DLA's Technical Data Management Transformation (TDMT) efforts to determine IT architecture needs and to ensure DLA's MBE architecture meets/exceeds DOD compliance objectives and integrates with Military Services irrespective of platforms. DLIR will continue to explore Digital Manufacturing Enterprise models that shift procurement strategy to on-demand manufacturing capacity data and continue collaboration with MxD focusing on cybersecurity and building the digital thread completing the conversions of selected NSNs to 3D, model-based formats, producing first articles, and demonstrating to the cognizant Engineering Support Activity (ESA) that the model-based TDP can be the authoritative TDP. The Emerging Manufacturing Technology (EMT) program will continue to enable DLA's investigation of new disruptive technology advances that may be implemented in the nearer term, without degrading well established program efforts. An additional $2.5 million was added for Critical Chemical, Strategic Material Related Efforts. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** -Funding and efforts for the Three-dimensional (3D) Technical Data Modernization (TDM) / Model-Based Enterprise (MBE) (R&D LOE 2) begins in FY 2023 focused on three-dimensional technical data and knowledge-based tools to transform and streamline supply system responsiveness for DLA-managed commodities. -The overall R&D LOE 2 baseline was increased by approximately $1.000 million across FY 2023 - FY 2027 based on internal funding reallocation decision to modernize DLA's technical data management and predictive analytics capability and lay the foundation for next generation Smart Manufacturing.			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** TDM / *3D Tech Data Modernization / Model Based Enterprise*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
-An additional $2.5 million was added for Critical Chemical, Strategic Material Related Efforts.			
Accomplishments/Planned Programs Subtotals	0.000	-	10.944

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency											Date: April 2022	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 3: *Advanced Technology Development (ATD)*					R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log 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**
Total Program Element	81.268	14.507	11.987	13.663	-	13.663	13.994	14.287	14.553	14.822	Continuing	Continuing
EMM: *Enhancing Analysis, Modeling, and Decision Support (formerly Analytic & Decision Support)*	15.123	2.215	3.581	-	-	-	-	-	-	0.000	Continuing	Continuing
GLTD: *Improving Logistics Processes (formerly Logistics Process)*	25.507	3.554	4.939	-	-	-	-	-	-	0.000	Continuing	Continuing
04: *Emergent Logistics R&D Requirements (formerly Innovative Products & Services for DLA Customers)*	40.638	8.738	3.467	-	-	-	-	-	-	0.000	Continuing	Continuing
LOI: *Logistics Operations Innovation*	-	0.000	0.000	6.088	-	6.088	6.353	6.485	6.605	6.726	Continuing	Continuing
PAM: *Predictive Analytics / Modeling & Simulation*	-	0.000	0.000	3.872	-	3.872	3.881	3.973	4.051	4.129	Continuing	Continuing
SWM: *Smart-Warehouse Modernization*	-	0.000	0.000	3.703	-	3.703	3.760	3.829	3.897	3.967	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Logistics Agency (DLA) is responsible for providing to the Military Services, other Federal Agencies, as well as combined and allied forces, the full spectrum of logistics, acquisition and technical services. DLA sources and provides virtually 100 percent of the consumable items the military services need to operate – including food, uniforms, fuel and energy, medical supplies, construction and barrier materials, equipment, and more than 85 percent of the military's spare parts. DLA also provides logistics related services such as logistics information data management, the reutilization of military equipment, as well as documents automation and production services. DLA's Logistics Research and Development (Log R&D) program helps ensure that advanced logistics concepts and business processes are used to accomplish the agency's mission with the leanest possible infrastructure. Log R&D identifies the best commercial business practices and tailors them, as necessary, into the most effective business processes for the agency. Log R&D develops and demonstrates high risk, high payoff technology that provides a significantly higher level of support at the lowest possible costs.

Beginning in FY 2023, the DLA Log R&D Program Element shifts from three Strategic Focus Areas to three Lines of Effort (LOEs): Predictive Analytics, Modeling & Simulation (R&D LOE 3), Logistics Operations Innovation (R&D LOE 4), and Smart Warehouse Modernization (R&D LOE 5). These LOEs are closely aligned to

documented and tracked priorities specified in the most current DLA Strategic Plan, that calls for Digital Business Transformation as one of three critical capabilities to achieve DLA's business goals of enhancing performance, reducing costs, and becoming more predictive and data driven. This critical capability also seeks to transform systems and processes to improve data transparency, reliability, and security for our employees, customers, and suppliers. DLA's initiatives within this critical capability align with the interim National Security Strategy (NSS) by emphasizing the importance of harnessing rapid emerging technologies that will transform how we do business.

- Predictive Analytics, Modeling & Simulation (R&D LOE 3): R&D efforts develop predictive analytics solutions using data and Artificial Intelligence/Machine Learning (AI/ML) to solve high-impact problems, improve business operations, and provide actionable strategies to inform business decisions. Primarily focused on the DLA Strategic Plan Critical Capability C: Digital Business Transformation, these efforts cut across DLA Strategic Plan LOE 1: Warfighter Always, LOE 2: Trusted Mission Partner, and LOE 4: Modernized Acquisition and Supply Chain Management, supporting the warfighter through the Weapon System Sustainment (WSS) portfolio of projects.

- Logistics Operations Innovation (R&D LOE 4): R&D efforts to cultivate integration of innovative processes and technology into the DLA supply chains to enhance warfighter readiness and weapons system sustainment. This LOE focuses on supporting the DLA LOE 4: Modernized Acquisition and Supply Chain Management, while also investment in cross-cutting supply chain efforts, to include fuel quality and alternative fuel sources, or emergent needs that impact DLA's ability to effectively support the warfighter through the following portfolios: Energy Readiness Program (ERP), Acquisition Modernization Technology Research (AMTR), and Supply Chain Management (SCM).

- Smart Warehouse Modernization (R&D LOE 5): R&D efforts to modernize distribution and disposition operations through infusion of smart-warehousing, interconnected technologies, and automation. This LOE is dedicated to one of the primary focus areas of DLA's Critical Capability for Digital Business Transformation: warehousing modernization through efforts within the Strategic Distribution and Disposition (SDD) portfolio of projects.

Until the shift from SFAs to LOEs in FY 2023, DLA LOG R&D remains aligned into three Strategic Focus Areas (SFAs) for FY 2021 and FY 2022: 1) Enhancing Analysis, Modeling, and Decision Support (EAMD), 2) Improving Logistics Processes (ILP), 3) Emergent Logistics R&D Requirements (ELR).

- The EAMD SFA includes efforts to develop decision support tools, such as modeling, simulation, and other analytics to improve operational strategy decision-making, forecasting, and procurement, which support more effective and efficient responses to emerging market and customer requirements.
- The ILP SFA includes efforts to develop and implement advanced technology in logistics processes over and above current baseline systems.

- The ELR SFA includes efforts to support emergent Logistics R&D requirements that arise out of the budget cycle. These out of cycle requirements always occur. This SFA begins new projects in a timely manner without disrupting ongoing projects by funds reallocation. This SFA scope includes all DLA supply chains and logistics processes.

DLA's focus for this budget cycle highlights advanced capabilities in digital and technical data modernization, management and analytics to transform DLA Business Processes to lower the Agency's material acquisition and operation costs along with improving weapons systems support. This effort spans across both DLA R&D Program Elements and multiple R&D LOEs, impacting across the DOD Joint Defense Manufacturing Technology Panel and DLA Enterprise logistics processes.

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency	Date: April 2022
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603712S *I Logistics Research and Development Technology (Log R&D)*

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	10.235	12.418	0.000	-	0.000
Current President's Budget	14.507	11.987	13.663	-	13.663
Total Adjustments	4.272	-0.431	13.663	-	13.663
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	5.000	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.200	-			
• SBIR/STTR Transfer	-0.528	-0.431			
• Adjustments to Budget Year	-	-	13.663	-	13.663

Change Summary Explanation

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

FY 2023:

-DLA Logistics R&D baseline was increased by $0.697 million for an internal funding reallocation decision to modernize DLA's warehousing and distribution processes by leveraging automation, Big Data, and predictive analytics to make data-driven decisions, improve productivity and cost effectiveness, and realize returns on investment as agency savings.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	Project (Number/Name) EMM / *Enhancing Analysis, Modeling, and Decision Support (formerly Analytic & Decision Support)*	

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
EMM: *Enhancing Analysis, Modeling, and Decision Support (formerly Analytic & Decision Support)*	15.123	2.215	3.581	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Strategic Focus Area (SFA) funds developments in advanced analytical tools, modeling, and simulation of logistics and supply chain processes. These tools will improve DLA forecasting and procurement strategy decisions and lead to faster and more flexible responsiveness to emerging market and customer requirements. This SFA consists of two programs:

The Strategic Distribution & Disposition (SDD) Program collaborates with DLA Distribution and Disposition Services to identify legacy capabilities that are inadequate for emerging worldwide distribution and disposition requirements. A key objective of the SDD Program is to anticipate, assess, and meet the current and future Warfighter requirements by leveraging R&D to infuse innovation into solutions. Long-term objectives include mitigating the DOD Supply Chain Management high risk issues identified by the Government Accountability Office (GAO), 2018 (Inventory Management, Material Distribution and Asset Visibility).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Enhancing Analysis, Modeling, and Decision Support	2.215	3.581	-
Description: The Strategic Distribution and Disposition (SDD) program continued to lay the groundwork for DLA's Smart Warehouses. During FY 2021, SDD met with vendors and potential vendors, and continued research of the technologies required to implement smart warehousing solutions. The SDD program provided applied research, analytical and decision support to DLA Distribution and Disposition Services and provided support to the Distribution Modernization Program (DMP). Additionally, SDD will continue to engage with Industry, Department of Defense (DOD) sponsored Federally Funded Research and Development Centers (FFRDCs) and University-Affiliated Research Center Laboratories (UARCs) leveraging subject-matter expertise in key areas of research such as Blockchain, Artificial Intelligence, Machine Learning, Internet of Things (IoT), Augmented Reality, and Autonomous/Robotics systems. SDD will continue to incorporate Integrate Project Teams (IPT) for project collaboration and Integrated System Engineering concepts (test and evaluation) into Distribution projects. - During FY 2021, the SDD Program completed in research of an Electric Yard Truck for DLA Distribution. The purpose of this project is to perform a proof of concept in DLA Distribution San Joaquin, CA (DDJC) to test and evaluate to determine the feasibility of replacing conventional fossil-fueled trucks with the alternative electric truck technologies.			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** EMM / *Enhancing Analysis, Modeling, and Decision Support (formerly Analytic & Decision Support)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
- The SDD Program completed Phase I of the LocatorX Automated Warehouse Inventory Management case study which successfully proved a materiel solution that will enable and provide the logistics capabilities that deliver the supply chain and distribution support necessary to meet the demands of the Warfighter whenever and wherever required while incorporating into an enterprise architecture solution. Phase II of the LocatorX project will focus on Sensor IoT technology research which began in the 4th Quarter, FY 2021. - SDD progressed through the Phase II Small Business Innovative Research (SBIR) Augmented Reality (AR) case study to prove out DLA's acquisition approach for implementing AR technology in the Warehouse Picking process. This project continued to develop a prototype augmented reality system in a DLA warehouse environment and will provide a proof of concept to ascertain the utility, feasibility, maintainability, and cost-effectiveness of using AR to improve inventory efficiency. This project is planned for completion in the 2nd Quarter, FY 2022. - In April 2021, the SDD Program kicked-off an SBIR AGV Phase I project for an innovative indoor-outdoor mule-style AGV, developed/acquired in conjunction with other DOD partners. This project will serve as the pilot and proof of concept though test and evaluation at DLA Distribution Corpus Christi, TX (DDCT) and Hill Air Force Base, UT (DDHU) to ascertain the utility, feasibility, maintainability, and cost-effectiveness of AGVs. - During 4th Quarter, FY 2021, SDD began a Phase I case study to evaluate the application of a DLA Warehouse Inventory Drone. The study intends to identify a range of alternative warehouse drone solutions. The vendor will work with end-users to understand the use case requirements, evaluate the warehouse inventory drone pilot through research, provide DLA with the most feasible and beneficial solution to identify inventory capability gaps and optimize the study's outcome. - During 4th Quarter, FY 2021, a SBIR Phase I project began work to test the use of Artificial Intelligence (AI) at Distribution Center Warehouses, current DLA inventory management is manual with some machinery to help move inventory. This use case will study and analyze the use of AI and its potential applications to manage and guide end-use systems such as automated arms, robots, augmented reality for inventory management and other performance applications. - SDD Program also initiated planning for projects for technologies that address Automated Storage and Retrieval Systems (AS/RS), In-Transit Visibility (ITV), AI imbedded Robotic Arms, Warehouse Performance Management, 5G Networks, and a Systems of Systems Smart Warehouse. ***FY 2022 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** EMM / *Enhancing Analysis, Modeling, and Decision Support (formerly Analytic & Decision Support)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
The Strategic Distribution and Disposition (SDD) program will continue to provide applied research, analytical and decision support to DLA Distribution and Disposition Services and provide support to the Distribution Modernization Program (DMP). Additionally, SDD will continue to engage with Industry, DOD sponsored FFRDCs and UARCs leveraging subject-matter expertise in key areas of research such as 5G Networks, Sensor IoT, Blockchain, Quantum Computing, AI/ML, AR, AS/RS, Performance Management, Automated Inventory, 3D Warehouse Mapping, and Autonomous/Robotics systems. SDD will continue to incorporate IPTs for project collaboration and Integrated System Engineering concepts (test and evaluation) into Distribution projects. During FY 2022, the SDD Program plans to initiate technology projects that address ITV, AI imbedded Robotic Arms, Warehouse Performance Management, 5G Networks, and a Systems of Systems Smart Warehouse. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** -Funding and efforts for the Strategic Distribution and Disposition (SDD) program move to the Smart Warehouse Modernization Line of Effort (R&D LOE 5) in FY 2023 focused on modernizing distribution and disposition operations through infusion of smart-warehousing, interconnected technologies, and automation. -FY 2022: Internal Realignment from DRAS2 to LOG R&D of approximately $0.930 million for the Strategic Distribution and Disposition (SDD) program in FY 2022 in order to support DLA Strategic Plan priorities in digital business transformation and data analytics. -Additionally, the overall DLA Logistics R&D baseline was increased by approximately $0.750 million across FY 2023 - FY 2027 based on internal funding reallocation decision to modernize DLA's warehousing and distribution processes by leveraging automation, Big Data, and predictive analytics to make data-driven decisions, improve productivity and cost effectiveness, and realize returns on investment as agency savings.			
Accomplishments/Planned Programs Subtotals	2.215	3.581	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	Project (Number/Name) GLTD / *Improving Logistics Processes (formerly Logistics Process)*	

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
GLTD: *Improving Logistics Processes (formerly Logistics Process)*	25.507	3.554	4.939	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Improving Logistics Processes (ILP) Strategic Focus Area (SFA) encompasses R&D efforts within the Weapon System Sustainment (WSS) and Acquisition Modernization Technology Research (AMTR) programs to support DLA business functional units through applied research and development of advanced technologies to improve business processes and operational methods, leverage the application of leading edge logistics “out-of-the box” concepts using disruptive technology business tools, and support DLA’s technological transformation effort. To qualify for R&D funding, the R&D effort must develop and apply technology and processes over and above current baseline IT systems and continuous improvements efforts.

Although all DLA processes are in scope, the strategic focus for this budget cycle is in Procurement, Planning, Technical Quality and the Major Subordinate Commands.

Innovative process changes and new technologies will be researched in these areas to drive improvements to internal costs, reduce award delays, and improve material availability, supply chain security, demand forecasting and logistical planning. This will be accomplished through the use of Artificial Intelligence/Machine Learning (AI/ML), blockchain technology, and research of emerging commercial best practices and technologies.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Improving Logistics Processes (ILP)	3.554	4.939	-
Description: The Weapon System Sustainment (WSS) program: - Continued research of Artificial Intelligence/Machine Learning (AI/ML) to enhance predictive analytics capabilities through improved metadata management and data quality with the Collibra tool that provides faster data insight. - Completed AI/ML research included application of commercial open-source AI/ML capabilities to predict and mitigate backorders and to improve lead time estimates. - Began a multi-pronged effort to enhance supply chain risk management using emergent technologies to improve risk assessment, market intelligence, and illumination of supply chain threats.			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** GLTD / *Improving Logistics Processes (formerly Logistics Process)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
- Began a year-long project to assess the practicality of implementing quantum computing technologies within DLA in the FY 2024 timeframe. Quantum computers leverage quantum mechanical phenomena to manipulate information in a manner that will enable larger and more complex calculations that cannot be accomplished on classical computers. Quantum computing is a key enabling technology for AI/ML, predictive analytics, highly complex simulations, and other emerging disruptive technologies. The Acquisition Modernization Technology Research (AMTR) program will establish in FY 2022. During FY 2021, transition began for acquisition modernization efforts that are currently managed and executed under the WSS program which included: - A comprehensive DLA J-7 Acquisition Modernization Program (AMP) groundwork study is in for acquisition modernization. This project will lead the evolutionary future of acquisition through emerging technologies (AI/ML, Robotic Process Automation (RPA), and blockchain) and innovation, integrate data science and processes that strengthen our knowledge-rich workforce, gather actionable market intelligence, maximize enterprise IT modernization, and leverage a secure and connected supply chain. Final results of the study will entail a 10 year enterprise acquisition modernization outlook which will enhance the AMTR program including future projects. - Two additional WSS projects are in the process of transitioning to the AMTR portfolio including Contract Quality Control and Applied Market Intelligence for Defense Acquisition (AMIDA). The Contract Quality Control project will recommend a state-of-the-art system for DLA contracts that incorporates modern technologies (such as AI) to provide a critical capability for DLA to measure the quality of contracts awarded. Efforts are currently underway for Phase I which is the initial study. AMIDA tackles a market intelligence framework for each DLA supply chain, specifically through research, analysis and an acquisition strategy formulation. Aviation is currently in the process of evaluation; however, this study will continue to expand across all of DLA's supply chains through FY 2025. - AMTR also collaborated with J7 on a rapid manufacturing operational enterprise solution for government owned intellectual property low demand items to improve DLA's readiness capabilities, delivering parts cheaper and faster. A pilot (proof of concept) is currently underway that will inform future objectives and milestones. ***FY 2022 Plans:*** The Weapon System Sustainment (WSS) program will: - Continue assessment of AI/ML, quantum computing capabilities, and enterprise-wide data quality and curation capabilities. This will include additional research into demand projection, and expansion of supply chain risk management enhancements to additional items.			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** GLTD / *Improving Logistics Processes (formerly Logistics Process)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
- Partner with the Joint Artificial Intelligence Community to improve demand projections and evaluate commercial data sources for supply chain risk management analysis. - Continue exploration of blockchain technology by identifying a pilot study for a DLA business process such as a capability that permits Clothing & Textile (C&T) material suppliers (e.g., fabric, fiber and dye vendors) to securely share production data on a limited partner platform. The Acquisition Modernization Technology Research (AMTR) program will be fully operational beginning FY 2022. The program will continue efforts to expand market intelligence capabilities, Applied Market Intelligence for Defense Acquisition (AMIDA), to the remaining DLA supply chains. Phase II of Contract Quality Control will also begin which entails performing rapid prototyping of a modern technology solution (Artificial Intelligence or Robotic Process Automation) and defining a transition/sustainment plan. AMTR will continue collaboration efforts on the rapid manufacturing pilot including demonstration of prototype capabilities (algorithmic pricing and 3D modeling). ***FY 2022 to FY 2023 Increase/Decrease Statement:*** -Funding and efforts for the Weapons System Sustainment (WSS) program will move to the Predictive Analytics, Modeling & Simulation Line of Effort (R&D LOE 3) in FY 2023 focused on predictive analytics solutions using data and Artificial Intelligence/ Machine Learning (AI/ML) to solve high-impact problems, improve business operations, and provide actionable strategies to inform business decisions. -Funding and efforts for the Acquisition Modernization Technology Research (AMTR) program will move to the Logistics Operations Innovation Line of Effort (R&D LOE 4) in FY 2023 focused on the integration of innovative processes and technology into the DLA supply chains to enhance warfighter readiness and weapons system sustainment.			
Accomplishments/Planned Programs Subtotals	3.554	4.939	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	Project (Number/Name) 04 / *Emergent Logistics R&D Requirements (formerly Innovative Products & Services for DLA Customers)*	

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
04: *Emergent Logistics R&D Requirements (formerly Innovative Products & Services for DLA Customers)*	40.638	8.738	3.467	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Emergent Logistics R&D Strategic Focus Area (SFA) includes R&D efforts to develop new products and services for DLA customers in two programs:

The Energy Readiness Program (ERP) roadmap helps to achieve the operational energy strategy goals of increasing sources of supply, developing and implementing alternative fuels under the ERP.

The Supply Chain Management (SCM) program addresses emergent and out of budget cycle requirements and opportunities within DLA's supply chains. A key objective of the SCM Program is to collaborate with customers (DLA J-Codes and Major Subordinate Commands (MSCs)) to identify capability shortfalls that can be addressed through major research efforts. These R&D efforts strive to develop technology mitigation strategies that address current and anticipated problems within DLA's supply chains.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Emergent Logistics R&D Requirements	3.738	3.467	-
Description: The Energy Readiness Program (ERP) continued working with Military Service customers and technical offices to improve specifications and standards for fuel and additive quality, engage in modeling and simulation of the energy supply chain and identifying alternative energy sources for military customers. - Initiated a project with the University of Hawaii, "Investigation of Waste-Based Feedstocks for Sustainable Aviation Fuel Production" to investigate the use and behavior of urban solid waste (e.g., wood residue from construction and demolition operations) for potential conversion of the materials into renewable fuels. This study will develop modeling to validate the use of the materials for use in gasification/Fischer-Tropsch process conversion into commercial and military grade fuels. - Completed "Dual Fuel Fatty Acid Methyl Ester (FAME) Quantification Instrument" project which built on an Army Phase II SBIR effort to develop a field portable, durable, accurate, an dependable instrument to measure fuel quality. This enhanced instrument			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** 04 / *Emergent Logistics R&D Requirements (formerly Innovative Products & Services for DLA Customers)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023

allows for faster detection of poor fuel quality and faster mitigation efforts when necessary. The Army is currently coordinating deployment of the units for initial use in service and DLA Energy operations.

- Completed “Hydrazine Propellant Evaluation Study”. The purpose of this project, under contract to Aerojet Rocketdyne Inc., was to independently evaluate the performance of two high purity hydrazine aerospace propellants that were produced through two different production processes. The study confirmed that the there was no difference in the performance of propellants, given the conditions of the study. Further work is recommended to further to increase confidence in the use of ketazine process-derived hydrazine as equivalent to Raschig process derived hydrazine.

- Completed “Determination and Mitigation of the Role of Hydrogen Sulfide (H2S) Scavengers in Jet Fuel Thermal Stability (1st Phase)” to examine the role and risk of hydrogen sulfide (H2S) scavenger by-products causing jet fuel thermal stability failures in the US fuel supply system. Until now, little was known of the effect on fuel thermal stability. The study will continue to further understand the capacity of the by-products to degrade jet fuel thermal stability.

The Supply Chain Management (SCM) program partnered with the Navy’s Battlespace Exploitation of Mixed Reality (BEMR) Lab to acquire and install a prototype demonstration of an Augmented Reality (AR) remote expert capability at DLA. SCM continued its work on a supply chain simulator that simulates the flow of supply through DLA’s supply chain network in support of theoretical or planned contingency operations, such as the support of OPLANs. SCM studied available solutions that provide multi-tiered vendor supply chain management and determine their viability for items, components, and raw materials of DLA’s known NSNs with castings, forgings, and specialty metals.

FY 2022 Plans:

The Energy Readiness Program (ERP) will continue working with the Service customers to improve specifications and standards for fuel quality, engage in modeling and simulation of the energy supply chain and identifying alternative energy sources for Military Customers. ERP will focus on determining R&D solutions for ongoing issues affecting fuel and fuel additive quality and operational requirements (e.g., thermal stability, storage stability, ignition capability) and providing additional alternatives for military unique fuels. With the current administration’s increased focus and climate change initiatives and alternatives to petroleum products, the program’s efforts to assist the military services in the qualification and certification of alternative fuels to meet military specification requirements are anticipated to increase significantly and that may drive future adjustments to current program priorities in order to address these areas.

The Supply Chain Management (SCM) program will complete the Navy’s Battlespace Exploitation of Mixed Reality (BEMR) Lab prototype demonstration of an Augmented Reality (AR) remote expert capability and continue work on the supply chain simulator

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** 04 / *Emergent Logistics R&D Requirements (formerly Innovative Products & Services for DLA Customers)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
in support of contingency operations. Additionally, SCM will complete a study of available solutions that provide multi-tiered vendor supply chain management options for DLA's known NSNs with castings, forgings, and specialty metals. Finally, SCM will initiate efforts to support the "greening" of selected DLA supply chain elements and continue to address emergent, out of budget cycle requirements and opportunities as they arise. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** -Funding and efforts for the Energy Readiness Program (ERP) and the Supply Chain Management (SCM) program will move to the Logistics Operations Innovation Line of Effort (R&D LOE 4) in FY 2023 focused on the integration of innovative processes and technology into the DLA supply chains to enhance warfighter readiness and weapons system sustainment.			
Title: Domestic Supply of Strategic Metals ***Description:*** DLA received a $5 million reprogramming from the Missile Defense Agency Congressional Add for domestic supply of strategic metals. This funding supports a continuation of a Small Business Innovation Program Ph-3 effort in establishing a domestic source of strategic metals, specifically titanium, by converting scrap metals into aerospace grade powders through proprietary technology of Unimelt Plasma Process. The funding is critical in expanding domestic industrial base to reach DOD goal of self-sufficiency in producing higher grade metals.	5.000	-	-
Accomplishments/Planned Programs Subtotals	8.738	3.467	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	Project (Number/Name) LOI / *Logistics Operations Innovation*	

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
LOI: *Logistics Operations Innovation*	-	0.000	0.000	6.088	-	6.088	6.353	6.485	6.605	6.726	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Logistics Operations Innovation Line of Effort (R&D LOE 4) seeks to improve DLA supply chain performance and security through the integration of advanced technology and innovative processes within the DLA day-to-day business operations. Research in these areas drive improvements to internal costs, reduce award delays, and improve material availability, supply chain security, and logistical planning. This will be accomplished through the use of artificial intelligence/machine learning, blockchain technology, and research of emerging commercial best practices and technologies. In addition, out of cycle emergent technologies across all DLA supply chains and logistics processes are resourced in a timely manner without disrupting ongoing projects by funds reallocation. The objectives for this LOE include:

1. Secure supply chains: Improvements to the DOD Class III Bulk Fuel Petroleum, Oil and Lubricants supply system
2. Technical Solutions for anti-counterfeiting detection: innovative solutions to prevent counterfeit parts in the logistical supply chain.
3. Integrated logistics information that yields cost savings and shortens lead times:

The Logistics Operations Innovation LOE includes R&D efforts to develop new products and services for DLA customers in three programs:

-The Energy Readiness Program (ERP) roadmap helps to achieve the operational energy strategy goals of increasing sources of supply, developing and implementing alternative fuels under the ERP.

-The Acquisition Modernization Technology Research (AMTR) program focuses on DLA Acquisition related requirements to enhance market intelligence research capabilities, contract quality, and best value acquisitions.

-The Supply Chain Management (SCM) program addresses emergent, out of budget cycle requirements and opportunities within DLA's supply chains. A key objective of the SCM Program is to collaborate with customers (DLA business process owners and supply chain owners) to identify capability shortfalls that can be addressed through major research efforts. These R&D efforts strive to develop technology mitigation strategies that address current and anticipated problems within DLA's supply chains.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Logistics Operations Innovation Line of Effort (R&D LOE 4)	0.000	-	6.088
Description: Funding and efforts for the Logistics Operations Innovation Line of Effort (R&D LOE 4) begins in FY 2023.			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** LOI / *Logistics Operations Innovation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
FY 2023 Plans: The Energy Readiness Program (ERP) will continue working with the Service customers to improve specifications and standards for fuel quality, engage in modeling and simulation of the energy supply chain and identifying alternative energy sources for Military Customers. ERP will focus on determining R&D solutions for ongoing issues affecting fuel and fuel additive quality and operational requirements (e.g., thermal stability, storage stability, ignition capability) and providing additional alternatives for military unique fuels. With the current administration's increased focus and climate change initiatives and alternatives to petroleum products, the program's efforts to assist the military services in the qualification and certification of alternative fuels to meet military specification requirements are anticipated to increase significantly and that may drive future adjustments to current program priorities in order to address these areas. The Acquisition Modernization Technology Research (AMTR) program will continue efforts to expand market intelligence capabilities (AMIDA) to the remaining DLA supply chains. Additionally, AMTR will investigate new projects that were addressed during the AMP groundwork study including accelerating e-commerce procurement methods and automating contract management for one-off or short-term buys. The Supply Chain Management (SCM) program will transition the supply chain simulator in support of contingency operations, continue efforts that support the "greening" of selected DLA supply chain elements and continue to address emergent, out of budget cycle requirements and opportunities as they arise. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Funding and efforts for the Logistics Operations Innovation Line of Effort (R&D LOE 4) begins in FY 2023 focused on the integration of innovative processes and technology into the DLA supply chains to enhance warfighter readiness and weapons system sustainment. -Internal Realignment from EFD PE 0605070S: Moved baseline funding from EFD to LOG R&D since the program was transitioned to Defense Finance Accounting Service (DFAS) in November 2021.			
Accomplishments/Planned Programs Subtotals	0.000	-	6.088

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** LOI / *Logistics Operations Innovation*

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	Project (Number/Name) PAM / *Predictive Analytics / Modeling & Simulation*	

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
PAM: *Predictive Analytics / Modeling & Simulation*	-	0.000	0.000	3.872	-	3.872	3.881	3.973	4.051	4.129	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The focus of the Predictive Analytics, Modeling & Simulation Line of Effort (R&D LOE 3) is to develop predictive analytic solutions by applying AI/ML algorithms to data obtained from DLA and external sources which can help solve high-impact problems, improve business operations, and provide actionable strategies for optimized business decisions. Through the development of decision support tools, such as modeling, simulation, and other analytics to improve operational strategy decision-making, forecasting, and procurement, DLA will achieve more effective and efficient responses to emerging market and customer requirements. The objectives for this LOE include:

1. Leverage technological solutions for data analytics and integration for demand projections and supply chain risk management.
2. Data analytics integration for DLA, the military services and industry: allows businesses and vendors to aggregate data, analyze it, and transform it into useful information.
3. Explore emergent technologies in quantum computing and edge computing to enable advanced analytics.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Predictive Analytics, Modeling & Simulation Line of Effort (R&D LOE 3)	0.000	-	3.872
Description: Funding and efforts for the Predictive Analytics, Modeling & Simulation Line of Effort (R&D LOE 3) begins in FY 2023. ***FY 2023 Plans:*** Efforts to improve demand projections and supply chain risk management identified in FY 2022 will continue. WSS will explore cross domain capabilities to bring classified and unclassified data into DLA using secure application program interfaces (APIs) software intermediaries to support data availability. WSS will conduct additional use cases for data analytics improvements, and AI/ML application such as adaptive training and improvements to key processes supporting warfighter readiness. Follow on efforts to conduct a pilot study utilizing quantum computing technology will be pursued based on the commercial availability of the technology. WSS will conduct an internal pilot study of blockchain technology for identified high value business process.			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** PAM / *Predictive Analytics / Modeling & Simulation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
WSS will research an enterprise-wide digital vendor on-boarding process to register, analyze, and validate suppliers to reduce duplication, improve timeliness, and the ability to tailor supply chain risk analytics to each program. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Funding and efforts for the Predictive Analytics, Modeling & Simulation Line of Effort (R&D LOE 3) begins in FY 2023 focused on predictive analytics solutions using data and Artificial Intelligence/Machine Learning (AI/ML) to solve high-impact problems, improve business operations, and provide actionable strategies to inform business decisions.			
Accomplishments/Planned Programs Subtotals	0.000	-	3.872

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	Project (Number/Name) SWM / *Smart-Warehouse Modernization*	

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
SWM: *Smart-Warehouse Modernization*	-	0.000	0.000	3.703	-	3.703	3.760	3.829	3.897	3.967	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Smart Warehouse Modernization Line of Effort (R&D LOE 5) will assess and test cyber-secure smart-warehouse technologies to transform and modernize distribution and disposition operations. The objectives for this LOE include:

1. Increase productivity and efficiency through interconnected technologies and automation such as enhanced inventory management, materiel distribution, and asset visibility
2. Provide enhanced and cyber-secure operations

The Strategic Distribution & Disposition (SDD) Program collaborates with DLA Distribution and Disposition Services to identify legacy capabilities that are inadequate for emerging worldwide distribution and disposition requirements. A key objective of the SDD Program is to anticipate, assess, and meet the current and future Warfighter requirements by leveraging R&D to infuse innovation into solutions. Long-term objectives include mitigating the DOD Supply Chain Management high risk issues identified by the Government Accountability Office (GAO), 2018 (Inventory Management, Material Distribution and Asset Visibility).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Smart Warehouse Modernization Line of Effort (R&D LOE 5)	0.000	-	3.703
Description: Funding and efforts for the Smart Warehouse Modernization Line of Effort (R&D LOE 5) begins in FY 2023. ***FY 2023 Plans:*** The Strategic Distribution and Disposition (SDD) program will continue to provide applied research, analytical and decision support to DLA Distribution and Disposition Services and provide support to the Distribution Modernization Program (DMP). SDD will continue to engage with Industry, DOD sponsored FFRDCs and UARCs leveraging subject-matter expertise in key areas of research such as 5G Networks, Sensor Internet of Things (IoT), Blockchain, Quantum Computing, Artificial Intelligence/ Machine Learning (AI/ML), and leverage the benefits realized from proven research studies and pilot projects in the areas of AR, AS/RS, Performance Management, Automated Inventory, 3D Warehouse Mapping, and Autonomous/Robotics systems (e.g., Autonomous Guided Vehicles (AGVs), Autonomous Mobile Robots (AMRs), etc.). SDD will continue to incorporate IPTs for project collaboration and Integrated System Engineering concepts (test and evaluation) into Distribution projects.			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** SWM / *Smart-Warehouse Modernization*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
During FY 2023 SDD plans to focus on the upgrading of current data architectures to manage and handle the evolution of "Big Data" in the digital revolution through the exploration of the fundamental shifts in network and wireless performance as classified with the 5Vs Concept: Volume – The need for high volume of data; Velocity – The need to generate and process data at high speed; Variety – The types of data (i.e., Policies, photographs, graphs, PDF/MS/Excel files, etc.); Veracity – The need for accuracy and trustworthiness of the data (cybersecurity); and Value – The need to enable smarter and better decision making. Efforts will include: -5G Network technology needed to enhance the connectivity and speed of mobile devices to communicate data for DLA's inventory management activities, material distribution activities, and asset visibility activities. -Sensor IoT technology applications to enhance DLA's data collection and implement the nine principal technologies are used to create a smart warehouse where machines, systems, and humans communicate to coordinate and monitor progress on the warehouse floor. IoT supports the opportunity to obtain "Big Results" and to improve services, productivity, lower downtime, and contributes to deep learning. -Blockchain to reduce the complexity of ordinary transactions and ensure data integrity, ensure all parties provide consensus before new transactions are added to the network, eliminate or reduce paper processes, speed up transaction times and increase efficiencies, enhance the ability to more securely track/trace transactions, and use cryptographic algorithms to provide better cybersecurity. -Investigate Quantum Computing to make the evolution of "Big Data" an effective reality by providing the capability to process the ever-increasing amounts of data being collected, stored, and disseminated, and more quickly ingest, compile, and analyze the large sums of data, perform data mining functions, computing operations, and to process "Big Data". -Artificial Intelligence/Machine Learning (AI/ML) to automate repetitive tasks, reduce or eliminate inefficiencies in supply chain activities, eliminate the high labor costs for repetitive tasks, reduce the long lead time to process repetitive tasks, implement AI/ML to automate tasks based on the integrity of data, and enhance DLA's business operations by simply reducing the time needed to perform repetitive tasks – i.e., data entry and transactions. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** -Funding and efforts for the Smart Warehouse Modernization Line of Effort (R&D LOE 5) begins in FY 2023 focused on modernize distribution and disposition operations through infusion of smart-warehousing, interconnected technologies, and automation.			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** SWM / *Smart-Warehouse Modernization*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
-Additionally, the Smart Warehouse Modernization Line of Effort (R&D LOE 5) baseline was increased by approximately $0.750 million across FY 2023 - FY 2027 based on internal funding reallocation decision to modernize DLA's warehousing and distribution processes by leveraging automation, Big Data, and predictive analytics to make data-driven decisions, improve productivity and cost effectiveness, and realize returns on investment as agency savings.			
Accomplishments/Planned Programs Subtotals	0.000	-	3.703

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency	Date: April 2022
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603720S *I Microelectronics Technology Development and Support (DMEA)*

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	1,116.972	131.718	202.475	139.833	-	139.833	143.442	145.862	146.628	147.741	Continuing	Continuing
001: *Technology Development*	557.688	57.911	0.000	-	-	-	-	-	-	0.000	Continuing	Continuing
003: *Trusted Foundry*	559.284	73.807	0.000	-	-	-	-	-	-	0.000	Continuing	Continuing
004: *Defense MicroElectronics Activity (DMEA)*	0.000	0.000	202.475	139.833	-	139.833	143.442	145.862	146.628	147.741	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Microelectronics Activity (DMEA) mission is to leverage advanced technologies to provide microelectronics solutions across the entire spectrum of technology development and system acquisition phases. It is critical to National Security for the Department to maintain technological superiority through microelectronics solutions via partnerships with the Defense Industrial Base, and by alternative means when industry is unable or unwilling to provide them. DMEA provides an in-house capability to quickly develop and deliver timely, cost-effective, technically appropriate solutions to sustain weapon systems, to modernize their capabilities, increase their lethality, address new threats, and meet operational demands. DMEA augments its in-house capability through extensive industry and Government partnerships that enable streamlined access to a variety of microelectronics technologies and engineering services to enhance responsiveness, and that develop sources for advanced microelectronics solutions.

DMEA's capabilities are critical in an atmosphere of diminishing domestic semiconductor manufacturing capability and increasing worldwide supply chain risks. The Department has very little influence over the microelectronics industry; the defense market represents less than 0.1% share of the total global semiconductor market. Access to mainstream, State of the Practice (SOTP) and State of the Art (SOTA) technologies is therefore a major and growing challenge. Threats to defense microelectronics include counterfeiting, latent vulnerabilities, malicious insertions, reliability issues particular to military environments, consolidation and off-shoring of manufacturing, rapid obsolescence and diminishing technology availability coming from an unpredictable and unsecured supply chain. In addition, as the Department maintains its weapon systems longer than originally planned, extended use increases demand for sustainment and modernization, which further intensifies the need for DMEA's unique capabilities, as well as continued development, and incorporation, of quantifiable assurance mechanisms.

DMEA provides the Department with engineering expertise and laboratories to address the myriad microelectronics issues and to meet military requirements across the entire spectrum of technology research and development, acquisition, and long-term support. DMEA applies its specialized capabilities to resolve microelectronics issues for hundreds of distinct Department programs across the acquisition lifecycle every year. In addition, DMEA assists the Combatant Commands (COCOMs) including Special Ops, Cyber, Intelligence, and the Radiation-Hard communities.

DMEA also provides the Department with front door access to SOTA microelectronics design and manufacturing capabilities with the added benefit of accredited facilities and processes, which employ quantifiable assurance mechanisms, to meet confidentiality, integrity, availability, performance and delivery needs. DMEA also provides the Services and Defense Agencies with a competitive cadre of accredited suppliers and advanced hardware assurance capabilities that can meet the needs of mission critical/essential systems for microelectronics components.

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency	Date: April 2022
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603720S *I Microelectronics Technology Development and Support (DMEA)*

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	124.049	160.821	0.000	-	0.000
Current President's Budget	131.718	202.475	139.833	-	139.833
Total Adjustments	7.669	41.654	139.833	-	139.833
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	12.000	49.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-4.331	-6.621			
• Correction for Non-Pay/Non-Fuel Purchases	-	-0.725	-	-	-
• Adjustments to Budget Year	-	-	139.833	-	139.833

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2021	FY 2022
Project: 001: *Technology Development*		
Congressional Add: *GaN-on-Si-Based RF Front-end Increase*	5.000	-
Congressional Add Subtotals for Project: 001	5.000	-
Project: 003: *Trusted Foundry*		
Congressional Add: *Military GPS User Equipment (MGUE) Transfer from PDW*	7.000	-
Congressional Add Subtotals for Project: 003	7.000	-
Project: 004: *Defense MicroElectronics Activity (DMEA)*		
Congressional Add: *Qualified Discrete Parts*	-	5.000
Congressional Add: *GaN-on-Si RF Front-end*	-	30.000
Congressional Add: *On-Shore Test Site*	-	9.000
Congressional Add: *Silicon Carbide Applications*	-	5.000
Congressional Add Subtotals for Project: 004	-	49.000
Congressional Add Totals for all Projects	12.000	49.000

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency	Date: April 2022
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603720S *I Microelectronics Technology Development and Support (DMEA)*

Change Summary Explanation

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

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*	Project (Number/Name) 001 / *Technology Development*	

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
001: *Technology Development*	557.688	57.911	0.000	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Technology Development funds provide DMEA with the resources to maintain an in-house ability to quickly develop and deliver timely, cost-effective, technically appropriate solutions to sustain weapon systems, to modernize their capabilities, increase their lethality, address new threats, and meet operational demands. These funds also support DMEA's ability to partner with industry, other government agencies, and academia to enable streamlined access to a variety of microelectronics technologies and engineering services.

These funds enable DMEA to provide increasingly rare government microelectronics design, fabrication, and test expertise to DoD programs. DMEA's knowledge of varying military requirements across a broad and diverse range of combatant environments and missions—along with its unique technical perspective—allows it to develop, manage and deliver novel, decisive, quick turn microelectronics solutions for defense, intelligence, special operations, and cyber and combat missions.

These funds allow DMEA to maintain and enhance critical, Trusted microelectronics design, aggregation, fabrication, post-processing, assembly and analysis capabilities to ensure that the Department is provided with solutions that enable or maintain the warfighter's technological superiority over potential adversaries. These solutions use high mix, low volume, unique microelectronics that are endemic to military requirements but are not commercially available. In addition, funding provides for the research, development and support necessary to ensure availability of microelectronics technologies for weapon systems, particularly as the technologies advance and industry is increasingly unable or unwilling to provide them.

DMEA looks to industry to see if it can provide the required solutions. If industry cannot or will not, only then does DMEA provide the necessary solutions using its in-house capabilities. A critical element required to enable continued success is DMEA's protection of the industry partners' valuable Intellectual Property (IP) and processes. DMEA is a small, agile government-owned and operated organization, providing the structure and confidence necessary to assure them that commercial IP is protected from potential competitors. This strategic and cooperative industry partnership approach allows DMEA to use industry-developed IP and processes by acquiring, installing, and applying them toward meeting the immediate and long-term needs of the Department. This unique capability is essential to all major weapon systems, combat operations, and support needs. As such, DMEA serves the Department, other US Agencies, industry and Allied nations.

DMEA assists hundreds of Department programs every year. DMEA has provided its specialized engineering assistance and capabilities to older systems, current systems, and even to programs not yet in the production phase. Programs that DMEA has recently provided critical support to include Counter-Rocket, Artillery, and Mortar (C-RAM) System, C-5, V-22, F-15, F-35, RQ-4 Global Hawk, AEGIS Advanced Surface Missile System, Advanced Medium-Range Air-to-Air Missile (AMRAAM), HH-60G Pave Hawk Helicopter, OSD Joint Fuze Technology Program, among many others. DMEA assists the Combatant Commands (COCOMs) including Special Operations, Intelligence, and the Radiation-Hard communities.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*	**Project (Number/Name)** 001 / *Technology Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Technology Development Accomplishments/Plans	52.911	-	-
Accomplishments/Planned Programs Subtotals	52.911	-	-

	FY 2021	FY 2022
Congressional Add: GaN-on-Si-Based RF Front-end Increase	5.000	-
FY 2021 Accomplishments: $5 million increase for GaN-on-Si-Based RF Front-end - DMEA plans to continue its efforts (phase 2) on scaling and establishing a domestic 200mm Gallium Nitride (GaN) on Silicon (Si) source at an industry partner.		
Congressional Adds Subtotals	5.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*	Project (Number/Name) 003 / *Trusted Foundry*	

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
003: *Trusted Foundry*	559.284	73.807	0.000	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Department, other agencies, and the intelligence community require uninterruptible access to state-of-the-art design and manufacturing processes to produce custom integrated circuits designed specifically for military purposes. Under DoDI 5200.44, Application Specific Integrated Circuits (ASICs) in critical/essential systems must be procured from Trusted sources in order to avoid altered or sabotaged parts. Worldwide competition from foreign, state-subsidized manufacturing facilities continues to greatly reduce the number of U.S. semiconductor fabrication facilities available to be Trusted sources. The prevalence of sophisticated offshore design and manufacturing facilities with economic incentives of state subsidies have resulted in the outsourcing of electronics component and integrated circuit services to these offshore facilities. This production capability is of increasing importance as domestic semiconductor manufacturing resources continue to decline, especially in the scarce domestic production capacity of high performance and state-of-the-art semiconductor technologies. Commercial sources of microelectronics remain inherently unpredictable and constitute a continued supply chain risk regardless of Government investment. This trend threatens the integrity and worldwide leadership of the U.S. semiconductor industry by eliminating many domestic suppliers and reducing access to Trusted fabrication sources for advanced technologies, and is of acute concern to the defense and intelligence communities. Secure communications and cryptographic applications, along with most other key defense technologies, depend heavily on high performance semiconductors where a generation of improvement often translates into significant force multipliers and capability advantages. Important defense technology investments and demonstrations carry size, weight, power, and performance goals that can only be met through the use of the most sophisticated semiconductors.

The Trusted Foundry program provides the Department with access to state-of-the-art microelectronics design and manufacturing capabilities with the added benefit of Trust, if necessary, to meet their confidentiality, integrity, availability, performance and delivery needs. The program also provides the Services and other agencies with a competitive cadre of accredited Trusted suppliers that can meet the needs of their mission critical/essential systems for Trusted integrated circuit components. The Trusted Access Program Office has contracted with commercial sources to satisfy state-of-the-art semiconductor requirements. DMEA will foster all viable alternatives to continue the vital supply of Trusted microelectronics, including the work of the DMEA Trusted Access Program Office with commercial state-of-the-art industry, as well as the extension and implementation of key process technologies for trust at DMEA. It is imperative for a wide range of technologies in ongoing and future Department systems that access to Trusted suppliers continues. Most importantly, access to Trusted Microelectronics is absolutely necessary to meet secure communication and cryptographic needs requiring state-of-the-art semiconductor technologies.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Trusted Foundry	66.807	-	-
Accomplishments/Planned Programs Subtotals	66.807	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*	**Project (Number/Name)** 003 / *Trusted Foundry*

	FY 2021	FY 2022
Congressional Add: Military GPS User Equipment (MGUE) Transfer from PDW	7.000	-
FY 2021 Accomplishments: $7M MGUE DLA requested transfer from PDW - DMEA plans to execute the first option year of a two year extension of a critical process technology required for the DoD to complete its procurement of MGUE ASICs.		
Congressional Adds Subtotals	7.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*	Project (Number/Name) 004 / *Defense MicroElectronics Activity (DMEA)*	

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
004: *Defense MicroElectronics Activity (DMEA)*	0.000	0.000	202.475	139.833	-	139.833	143.442	145.862	146.628	147.741	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

DMEA maintains an in-house ability to quickly develop and deliver timely, cost-effective, technically appropriate solutions to sustain weapon systems, to modernize their capabilities, increase their lethality, address new threats, and meet operational demands. These funds also support DMEA's ability to partner with industry, other Government agencies, and academia to enable streamlined access to a variety of microelectronics technologies and engineering services.

These funds enable DMEA to provide increasingly rare government microelectronics design, fabrication, and test expertise to DoD programs. DMEA's knowledge of varying military requirements across a broad and diverse range of combatant environments and missions—along with its unique technical perspective—allows it to develop, manage and deliver novel, decisive, quick-turn microelectronics solutions for defense, intelligence, special operations, cyber and combat missions.

These funds allow DMEA to maintain and enhance critical, microelectronics design, aggregation, fabrication, post-processing, assembly, hardware assurance and analysis capabilities to ensure that the Department is provided with solutions that enable or maintain the warfighter's technological superiority over potential adversaries. These solutions use high mix, low volume, unique microelectronics that are endemic to military requirements but are not commercially available. In addition, funding provides for the development and sustainment support necessary to ensure availability of microelectronics technologies in accordance with applicable operational security standards, particularly as the technologies advance and industry is increasingly unable or unwilling to provide them.

The Department, other US Agencies, and the Intelligence Community require uninterrupted access to design and manufacturing processes to produce custom integrated circuits designed specifically for military purposes. DMEA partners with industry to provide the required solutions, and the necessary access to commercial SOTA microelectronics design and manufacturing capabilities to meet confidentiality, integrity, availability, performance and delivery needs. If industry cannot or will not provide the required solutions, only then does DMEA provide the necessary solutions using in-house capabilities. A critical element required to enable continued success is DMEA's protection of the industry partners' valuable Intellectual Property (IP). DMEA is an agile, Government-owned-and-operated organization, providing the structure and confidence necessary to assure them that commercial IP is protected from potential competitors. This strategic and cooperative industry partnership approach allows DMEA to use industry-developed IP by acquiring, installing, and applying them toward meeting the immediate and long-term needs of the Department. This unique capability is essential to all major weapon systems, combat operations, and support needs. As such, DMEA serves the Department, other US Agencies, industry and Allied nations.

DMEA assists hundreds of Department programs every year. DMEA has provided its specialized engineering assistance and capabilities to older systems, current systems, and even to programs not yet in the production phase. Programs that DMEA has recently provided critical support to include CH-53E Sea Stallion, Virginia Class Submarines, Columbia Class Submarines, UH-60 Blackhawk, Air Force Air Combat Command, US Army Corps of Engineers, E-3 AWACS, C5ISREW CHEETAH, Military GPS User Equipment, NASA Parker Solar Probe, Naval Research Laboratory High Power Microwave Office, among many others. DMEA assists the Combatant

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*	**Project (Number/Name)** 004 / *Defense MicroElectronics Activity (DMEA)*

Commands (COCOMs) including Special Operations, Intelligence, and the Radiation-Hard communities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Defense Microelectronics Activity Accomplishments/Plans	-	153.475	139.833

FY 2022 Plans:

DMEA will design, develop, and demonstrate microelectronics concepts, advanced technologies, and applications to solve operational sustainment problems. DMEA will apply advanced technologies to add performance enhancements in response to the newest asymmetric threats and to modernize aging weapon systems. To meet the increased missions seen in the last several years by CCMDs, Special Operations, and the Intelligence Community, DMEA will extend and refresh capability by recapitalizing and modernizing its aging laboratory infrastructure, developing advanced techniques to inspect and analyze circuits, and adapting tools and processes to contribute to the Department-wide hardware assurance efforts, all to meet quick turn solutions on which CCMDs and Special Operations can rely. DMEA will continue to act as the program manager for the Trusted Foundry Program and will provide the Department with access to state-of-the-art microelectronics design and manufacturing capabilities with the added benefit of Trust, if necessary, to meet their confidentiality, integrity, availability, performance and delivery needs via the Trusted Access Program Office. The program also provides the Services and other agencies with a competitive cadre of accredited Trusted suppliers that can meet the needs of their mission critical/essential systems for Trusted integrated circuit components. The Trusted Access Program Office has contracted with commercial sources to satisfy state-of-the-art semiconductor requirements. DMEA will foster all viable alternatives to continue the vital supply of Trusted microelectronics, including the work of the DMEA Trusted Access Program Office with commercial state-of-the-art industry. In areas where Trust is not available, DMEA will assist the Department in the incorporation of the standards for the design and production of the critical components and services needed for appropriate defense systems while contributing to the development or transition to new security approaches for microelectronics.

DMEA will continue to support DoD programs in utilizing operational security standards and conducting ACMAs in support of the program protection planning process. DMEA will leverage new models for the use of in-house capabilities to support STEM workforce development, mainstream semiconductor technology fabrication, and streamlined access to advanced technologies.

DLA Transfer from PDW for $35M. DLA requested transfer to execute procurement of ASIC’s from TAPO to include: reservations, security services, fee’s, masks, wafers, technical services, and other services provided by TAPO

FY 2023 Plans:

DMEA will design, develop, and demonstrate microelectronics concepts, advanced technologies, and applications to solve operational problems. DMEA will apply advanced technologies to add performance enhancements in response to the newest asymmetric threats and to modernize and sustain aging weapon systems. To meet the increased missions seen in the last several years by CCMDs, Special Operations, and the Intelligence Community, DMEA will extend and refresh capability by recapitalizing and modernizing its aging laboratory infrastructure, developing advanced techniques to inspect and analyze

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*	**Project (Number/Name)** 004 / *Defense MicroElectronics Activity (DMEA)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
circuits, and adapting tools and processes to contribute to the Department-wide hardware assurance efforts, all to meet quick turn solutions on which CCMDs and Special Operations can rely. DMEA will continue to act as the program manager for the Trusted Foundry Program and will provide the Department with access to state-of-the-art microelectronics design and manufacturing capabilities with the added benefit of Trust, if necessary, to meet their confidentiality, integrity, availability, performance and delivery needs via the Trusted Access Program Office. The program also provides the Services and other agencies with a competitive cadre of accredited Trusted suppliers that can meet the needs of their mission critical/essential systems for Trusted integrated circuit components. The Trusted Access Program Office has contracted with commercial sources to satisfy state-of-the-art semiconductor requirements. DMEA will foster all viable alternatives to continue the vital supply of Trusted microelectronics, including the work of the DMEA Trusted Access Program Office with commercial state-of-the-art industry. In areas where Trust is not available, DMEA will assist the Department in the incorporation of the standards for the design and production of the critical components and services needed for appropriate defense systems while contributing to the development or transition to new security approaches for microelectronics. DMEA will continue to support DoD programs in utilizing operational security standards and conducting ACMAs in support of the program protection planning process. DMEA will leverage new models for the use of in-house capabilities to support STEM workforce development, mainstream semiconductor technology fabrication, and streamlined access to advanced technologies. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** The FY 2022 to FY 2023 decrease is primarily due to the receipt of the FY 2022 DLA transfer from PDW for $35M which was not received in FY 2023.			
Accomplishments/Planned Programs Subtotals	-	153.475	139.833

	FY 2021	FY 2022
Congressional Add: Qualified Discrete Parts ***FY 2022 Plans:*** Plans awaiting development. Requested Congressional intent on 3/23/22.	-	5.000
Congressional Add: GaN-on-Si RF Front-end ***FY 2022 Plans:*** DMEA plans to continue its efforts (phase 3) on scaling and establishing a domestic 200mm Gallium Nitride (GaN) on Silicon (Si) source at a high volume DMEA accredited Trusted Supplier.	-	30.000
Congressional Add: On-Shore Test Site ***FY 2022 Plans:*** Plans awaiting development. Requested Congressional intent on 4/4/22.	-	9.000
Congressional Add: Silicon Carbide Applications	-	5.000

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*	**Project (Number/Name)** 004 / *Defense MicroElectronics Activity (DMEA)*

	FY 2021	FY 2022
FY 2022 Plans: Phase 1 effort to investigate and develop a 200mm SiC (Silicon Carbide) epitaxial growth and manufacturing capability at a domestic 200mm high volume DMEA accredited Trusted Supplier.		
Congressional Adds Subtotals	-	49.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency	Date: April 2022
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0605070S *I DOD Enterprise Systems Development and Demonstration*

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	32.406	1.327	0.654	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
09: *Enterprise Funds Distribution*	32.406	1.327	0.654	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The mission of the DOD Enterprise Business Systems (DEBS) is to coordinate and enable business transformation efforts across the Department of Defense (DOD). DOD's business enterprise must be closer to its warfighting customers than ever before, and Joint military requirements drive the need for greater commonality and integration of business and financial operations.

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	1.377	0.679	0.000	-	0.000
Current President's Budget	1.327	0.654	0.000	-	0.000
Total Adjustments	-0.050	-0.025	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.050	-0.025			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605070S / *DOD Enterprise Systems Development and Demonstration*	Project (Number/Name) 09 / *Enterprise Funds Distribution*	

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
09: *Enterprise Funds Distribution*	32.406	1.327	0.654	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Enterprise Funds Distribution (EFD) is a multi-service/multi-agency process improvement and modernization solution, initiated to provide full visibility of the OUSD(C) funds distributed through echelon I and II for the Military Departments, and at all levels for the Defense Agencies. Funds distribution by its nature is a key enabler of financial visibility within DOD enterprise systems. The concept of a fully visible enterprise funds distribution process serves as a reference where planned and coordinated funds development and execution takes place.

Within the current DOD environment, progress has been made streamlining a diverse set of stove-piped budget execution and funds distribution processes and systems. Efforts continue to improve the visibility of funding information, eliminate manual efforts and undue complexities to the management of budget authority, and to eliminate impediments in the flow of funding documents. The current environment relies heavily on manual processing and on disconnected standalone systems for the processing of Funding Authorization Documents (FADs) and reprogramming actions. This environment made the implementation of internal controls difficult, negatively impacted the accuracy and timeliness of information while making the processes of integrating and obtaining management information arduous.

The envisioned operational environment solves these problems by enabling lifecycle program value management in a web-based application utilizing an authoritative database with single-source data entry and automated workflow. Capabilities within this integrated environment will enable the automation of all funds distribution and funds control processes within OUSD(C) using authoritative and highly visible data. Specifically, capabilities include managing apportionments, distributing budget authority to the Military Departments and Defense Agencies, managing rescissions and continuing resolutions, creating and tracking reprogramming actions, and establishing program baselines and budget authority needed to support changes in funding priorities throughout the year.

The operational environment includes organizational elements down to the echelon II level responsible for managing DOD and Component appropriations operating in an unclassified environment. The web-based application provides pre-planning, apportionment, reprogramming, rescission, continuing resolution, reporting of enterprise-level funds control and distribution of appropriated funding.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Enterprise Funds Distribution (EFD)	1.327	0.654	0.000
Description: EFD will distribute funds to the Military Departments and the Defense Agencies.			
FY 2022 Plans: Development and deployment of System Change Requests (SCR's) to support post deployment requirements, required			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DOD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 09 / *Enterprise Funds Distribution*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
enhancements, post annual closeout activities and support of mandated ad-hoc/urgent operational requirements. ***FY 2023 Plans:*** Funding is no longer required as program was transitioned to DFAS in November 2021. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** The decrease from FY 2022 to FY 2023 is due to the program being removed from the RDT&E portfolio.			
Accomplishments/Planned Programs Subtotals	1.327	0.654	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The EFD strategy is to use a “single acquisition to full capability,” commercial-off-the-shelf (COTS) solution (Momentum software). The effort is needed to ensure EFD is fully implemented for all appropriation funding data for the Military Services and Defense Organizations.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DOD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 09 / *Enterprise Funds Distribution*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Savantage Solutions	Option/ FP	Savantage Solutions : Rockville, MD	14.158	-		-		-		-		-	0.000	14.158	14.158
TeraThink/CGI Corporation	C/FFP	TeraThink Corporation/CGI : Reston, VA	16.756	1.327	Dec 2020	0.654	Dec 2021	0.000		-		0.000	Continuing	Continuing	Continuing
TeraThink Corporation	C/FFP	TeraThink Corp. : TeraThink Corporation, Reston, VA	1.492	-		-		-		-		-	0.000	1.492	1.492
Prior Year Contracts	Option/ Various	Multiple : Multiple	-	-		-		-		-		-	Continuing	Continuing	-
		Subtotal	32.406	1.327		0.654		0.000		-		0.000	Continuing	Continuing	N/A

Remarks

Prior year contracts line include Savantage Solutions Option/FP Rockville, MD $14.158 million and TeraThink Corporation FFP Reston, VA $1.492 million.

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	32.406	1.327		0.654		0.000		-		0.000	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605070S / *DOD Enterprise Systems Development and Demonstration*	Project (Number/Name) 09 / *Enterprise Funds Distribution*	

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Enterprise Funds Distribution							
Enterprise Funds Distribution (EFD)	[redacted]		TRANSITION TO DFAS (Nov 2021)				

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DOD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 09 / *Enterprise Funds Distribution*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Wave 1 Deployment				
Development Activities using Momentum Financials ERP	1	2017	4	2018
Wave 2 Deployment				
The program will continue the development and deployment of EFD post Wave 2 requirements based on user group migration strategy. Also deploy additional accounts and dev activities.	1	2019	4	2019
Wave 3 Deployment				
The program will continue the development and deployment of EFD post Wave 3 requirements based on user group migration strategy. Also deploy additional accounts and dev activities.	1	2020	4	2020
Post Waves 1, 2 and 3 Development				
SCRs, Momentum Upgrade Development, Break-Fix Development	1	2021	4	2021
Transition to DFAS				
Transition to DFAS in November 2021	1	2022	1	2022
Post Transition to DFAS				
Post transition SCRs, Break-Fix Development	1	2022	4	2022

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency	Date: April 2022
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agencies Initiative (DAI) - Financial System*

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	204.561	21.403	31.136	23.171	-	23.171	25.719	25.381	24.975	25.164	Continuing	Continuing
01: *Defense Agencies Initiative - Financial System*	204.561	21.403	31.136	23.171	-	23.171	25.719	25.381	24.975	25.164	Continuing	Continuing

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 0491

A. Mission Description and Budget Item Justification

The Defense Agencies Initiative (DAI) program, a Category I Defense Business System, is an Enterprise Resource Planning (ERP) based program that was originally created to solve Defense Agency financial management problems through standard end-to-end business processes delivered by commercial off-the-shelf (COTS) software. DAI's mission is to provide an auditable, Chief Financial Officer (CFO) Act compliant business environment for the Defense customer organizations with accurate, timely, and authoritative financial data. DAI supports continued development and fielding of its current Increment 3 baseline. Previous funding for DAI Increments 1 and 2 were documented in the Defense Enterprise Business Systems program element 50605070S00. Increment 3 will deliver new financial capabilities including Defense Working Capital Fund (DWCF) and Re-Sale accounting plus a major application upgrade.

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	20.537	32.254	0.000	-	0.000
Current President's Budget	21.403	31.136	23.171	-	23.171
Total Adjustments	0.866	-1.118	23.171	-	23.171
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.578	-			
• SBIR/STTR Transfer	-0.712	-1.118			
• Adjustments to Budget Year	-	-	23.171	-	23.171

Change Summary Explanation

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

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605080S / *Defense Agencies Initiative (DAI) - Financial System*	Project (Number/Name) 01 / *Defense Agencies Initiative - Financial System*	

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
01: *Defense Agencies Initiative - Financial System*	204.561	21.403	31.136	23.171	-	23.171	25.719	25.381	24.975	25.164	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 0491

A. Mission Description and Budget Item Justification

DAI mission is to deliver an auditable, CFO Act compliant business environment for Defense customer organizations providing accurate, timely, authoritative financial data supporting the DoD goal of standardizing financial management practices, improving financial decision support, and supporting audit readiness. DAI has replaced multiple non-compliant financial management systems supporting diverse operational functions and the warfighter in decision-making and financial reporting. DAI currently provides the capability to produce timely, auditable reports as noted in four consecutive annual unmodified System and Organization Controls report (SOC-1).

The primary goal is to deploy a standardized system solution to improve overall financial management and comply with BEA, Standard Financial Information Structure (SFIS)/Standard Line of Accounting (SLOA), and Office of Federal Financial Management (OFFM) requirements. Common business functions within budget execution include the Department's BEA End to End (E2E) business processes: Cost Management; Budget to Report (B2R); Procure to Pay (P2P) with enhancements facilitating SFIS/SLOA and DoD procurement data standards and direct Treasury disbursing; Acquire to Retire (A2R) (real property lifecycle accounting only); Hire to Retire (H2R) (Time and Labor reporting and absence management only); Order to Cash (O2C); Proposal to Reward (P2R) (Grants financial management and accounting only; and a phased implementation of Governance, Risk, and Compliance (GCR) capabilities supporting audit readiness. Future Defense Working Capital Fund accounting, and Re-Sale Accounting (for Defense Commissary Agency (DeCA).

The DAI program modernizes the Defense Agencies' financial management processes by streamlining financial management capabilities, addressing financial reporting material weaknesses, and supporting financial statement auditability for the majority of agencies, field activities and non-Service organizations across the DoD. DAI supports a transformation of budget, finance, and accounting processes across participating defense agencies to help improve the quality of financial information, supporting financial auditability and decision-making. The DAI business solution, once fully implemented, will provide a near real-time, web-based system from a ".mil" environment of integrated business processes that will enable in excess of 84,000 Defense Agency financial managers, program managers, auditors, and Defense Finance and Accounting Service (DFAS) representatives to make sound financial business decisions.

The DAI implementation approach deploys a standardized system solution that is consistent with requirements in the Federal Financial Management Improvement Act (FFMIA) and the DoD Business Enterprise Architecture (BEA), while leveraging the out-of-the-box capabilities of the selected Commercial-Off-the-Shelf (COTS) product, Oracle e-Business Suite (EBS), Release 12.2.8 (R12). DAI implemented an Oracle Office of Management and Budget Financial Systems Integration Office (FSIO) qualified COTS financial management business solution with common business processes and data standards. The Program Management Office (PMO) will not develop any objects that are included in core COTS software or services (i.e. vendor data from Federal authoritative sources).

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agencies Initiative (DAI) - Financial System*	**Project (Number/Name)** 01 / *Defense Agencies Initiative - Financial System*

DAI supports the FY22-26 Department of Defense Financial Management Strategy. Strategic Goal 2, Optimize taxpayer dollars for the highest value outcomes; Strategic Goal 3, Increases the integrity of financial results; Strategic Goal 4, Simplify and optimize our end-to-end business environment; and Strategic Goal 5, Empower data-driven, fiscally informed decision making.

DAI is currently implemented at 26 Defense organizations and the Office of the Under Secretary of Defense, Comptroller (OUSD(C)). The program office is also responsible for operational sustainment of the system. Funds are required for additional government and contractor support, licenses, maintenance, and hardware to accomplish the remaining capability developments and organizational implementations. In 2017, 2018, 2019, and 2020, DAI received unmodified audit opinions with no comments.

The benefits of DAI are:
• Labor efficiencies (entering data once) and shared across all business processes (modules), workflows and lifecycle in a modern system;
• Reduction in contractor support;
• Financial visibility (Access to real-time financial data transactions);
• Enabling agility and resilience in execution (No silos – anyone/anywhere can backfill and work continues);
• Retiring legacy systems;
• Shared common business processes and employment of Federal/DoD Enterprise data standards (i.e., SFIS, SLOA, Procurement Data Standard (PDS) and Procurement Request Data Standard (PRDS)); and
United States Standard General Ledger (USSGL) Chart of Accounts to resolve DoD material weaknesses and deficiencies.
• Reducing reliance on custom Reports, Interfaces, Conversions, Extensions, Forms and Workflows by leveraging application upgrades
• Enhanced Internal controls to ensure accurate data, regulatory compliance and ensuring segregation of duties
• Significantly reduced data reconciliation requirements; and
• Enhanced analysis and decision support capabilities.

The DAI PMO also provides system integration services that include: acquisition/financial management, project management; configuration management; developing required Reports, Interfaces, Conversions, Extensions, Forms and Workflows (RICE-FW) objects; testing (cyber security, integration, functional, performance, conversion, user acceptance, operational); training (train the trainer/change management preparing the users for the cross functional skills and awareness needed to perform well with an integrated enterprise resource planning system); system deployment; data conversion; information assurance; database administration; as well as studies, coordination/analysis support.

DLA provides the Milestone Decision Authority (MDA), DLA Acquisitions (J7), and DLA Information Operations provides the Program Executive Officer (PEO), program manager, and PMO staff. The DAI PMO relies on DLA Acquisitions for most contracting support. Defense Information Systems Agency (DISA) data centers provide production, test and development, as well as Continuity of Operations (COOP) hosting, and the Joint Interoperability Test Command (JITC) for interoperability and performance testing. The DAI PMO serves as systems integrator.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agencies Initiative (DAI) - Financial System*	**Project (Number/Name)** 01 / *Defense Agencies Initiative - Financial System*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Defense Agencies Initiative (DAI) - Financial System	21.403	31.136	23.171

Description: In FY 2021, the DAI PMO accomplished:
• Obtained 5th consecutive annual Unmodified Opinion by an Independent Public Auditor (best outcome).
• Deployed DAI Increment 3 Rel 3, to existing organizations and to Defense Commissary Agency, the Joint Staff and National Defense University.
• Deployed DAI Time & Labor Release to Unites States Marine Corps, (over 17K new personnel) based on a Department of Navy request.
• Developed/Tested agency unique requirements and completed the study of 4th Estate common/core capabilities.
• Studied Agency unique requirements for Defense Finance and Accounting Service and Naval Special Warfare Command.
• Developed necessary work instructions and training materials.
• Supported the Financial Management (FM) & time/labor operations for over 71K users at 27 organizations.
• Supported the DoD RMF process to support actions included in the Authorizing Official's (AO) required Plan of Actions and Milestones including an independent FISCAM Test of Design/Test of Effectiveness to result in an AO decision to award an Authority to Operate.
• Continued to mature the GRC capabilities by expanding Enterprise controls: Configuration, Access, Prevention & Transactions supporting audit findings, recommendations & CAPs.
• Maintained the technical operations including: application of DISA Security Technical Implementation Guides, hardware & software currency for servers operating systems, middleware & applications including patches; overseeing internal processes within the Data Center enclaves; & the daily operation of several interfaces with external systems leveraging DLA Defense Automated Addressing System (DAAS), as well as established Federal Enterprise system web services.
• Conducted regular adversarial assessments, Risk Management Framework (RMF) continuous monitoring including code scans, and a Cooperative Vulnerability and Penetration Assessment.
• Obtained an interim Interoperability Certification or an Authority to Connect to the DoD Global Information Grid.
• The Defense Logistics Agency contracted for an independent public accounting firm to conduct the annual FFMIA and SSAE 18 assessments and conduct Cyber security assessments on the system.
• Updated interfaces with 38 other systems: (Bi-directional (25), Inbound (6), & Outbound (7)).
• Expanded the utility of Robotic Process Automation to include repetitive PMO functions.

FY 2022 Plans:
In FY 2022, the DAI PMO will:
• Deploy Release 4 to the existing customer organization, along with United States Marine Corps.
• Develop and deploy Release 4.1, Time and Labor, to existing using organizations and the new DFAS and Naval Special Warfare Command (NSWC) organizations in June 2022.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agencies Initiative (DAI) - Financial System*	**Project (Number/Name)** 01 / *Defense Agencies Initiative - Financial System*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
• Develop Release 5, Full Financials, to deploy to existing organizations along with DFAS and NSWC in Oct 2022. • Conduct pre-deployment planning and Business Process Re-engineering (BPR) with new Agencies, Inc 3 Rel 5 Agency mocks and SE technical reviews. Support a shortened implementation schedule for NSWC. • Support 29 organizations as they undergo audit by helping them with answering auditor RFIs and helping them locate required artifacts to maintain consistency of approach with all that use DAI. • Support the Office of Secretary of Defense (OSD) Reform Initiatives including DTM and G-Invoicing Support includes monthly progress meetings and some coding. • Maintain Application User Licenses to support additional users and increased data storage costs based on application data growth. • Conduct a service provider, independent audit, SSAE-19, and support DLA Audit Readiness Office in developing an assertion package supporting DLA SOC 1 and resolve any identified NOFs. • Have DISA data centers maintain all the operations s/w and h/w in the suite. DAI PMO will use data centers' SSAE 19 SOC 1 Report as the basis for its input for the annual DLA SOC 1 Report. • Conduct BEA compliance assessment against the current version (v10.0 for compliance) document results in the Department's assessment portal and conduct BPR for newly joining agencies. • Resolve critical software errors and critical statutory/regulatory enhancements that impact operations and incorporate changes identified during BPR, BEA compliance assessment and the Audit generated corrective action plans. • Support RMF process, maintaining activity to support actions included in the AO's required Plan of Action & Milestone (POA&M) to maintain the Authorization to Operate (ATO). • Expand use of Robotic Process Automation (RPA) scripts to increase speed of data entry, ensuring data accuracy from data entry through the entire requisition life cycle. • On-going efforts to support departmental efforts for Identity, Credential, and Access Management (ICAM) access control intuitive.			
FY 2023 Plans: • Will deploy Release 5 to the existing customer organization, along with DFAS and NSWC. • Will develop Release 6, Full Financials, to deploy to existing organizations along with DISA DWCF in Oct 2023. • Will conduct pre-deployment planning and BPR, Inc 3 Rel 6 Organization mocks and SE technical reviews. • Will support 29 organizations as they undergo audit by helping them with answering auditor RFIs and helping them locate required artifacts to maintain consistency of approach with all that use DAI. • Will support the OSD Reform Initiatives including DTM and G-Invoicing Support includes monthly progress meetings and some coding. • Will maintain Application User Licenses to support additional users and increased data storage costs based on application data growth.			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agencies Initiative (DAI) - Financial System*	**Project (Number/Name)** 01 / *Defense Agencies Initiative - Financial System*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
• Will conduct a service provider, independent audit, SSAE-19, and support DLA Audit Readiness Office in developing an assertion package supporting DLA SOC 1 and resolve any identified NOFs. • Will have DISA data centers maintain all the operations software and hardware in the suite. DAI PMO will use data centers' SSAE 19 SOC 1 Report as the basis for its input for the annual DLA SOC 1 Report. Support development of some cloud hosting activities in preparation for migration. • Will conduct BEA compliance assessment against the current version (v10.0 for compliance) document results in the Department's assessment portal and conduct BPR for newly joining agencies. • Will resolve critical software errors and critical statutory/regulatory enhancements that affect operations and incorporate changes identified during BPR, BEA compliance assessment and the Audit generated corrective action plans. • Will support RMF process maintaining activity to support actions included in the AO's required POA&M to maintain the ATO. • Will expand the use of RPA scripts to increase speed of data entry, ensuring data accuracy from data entry through the entire requisition life cycle. • On-going efforts to support departmental efforts for ICAM access control intuitive. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** The decrease from FY 2022 to FY 2023 is due to additional funding appropriated in FY 2022 for DAI deploying financial capabilities to United States Marine Corps (USMC) and continuing maturation of DWCF accounting capabilities necessary to meet Defense Finance and Accounting Service (DFAS) requirements.			
Accomplishments/Planned Programs Subtotals	21.403	31.136	23.171

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

DAI is developed and implemented using an evolutionary/incremental strategy including major annual software releases to accommodate upgrades as required by changes to the Department's BEA including new laws, regulations and policies as governed by its Functional Sponsor.

DAI Increments 1 and 2 are in sustainment. When Increment 3, Release 1 went live in October 2018, it subsumed Increment 2; therefore, only one DAI production baseline exists at any point in time.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agencies Initiative (DAI) - Financial System*	**Project (Number/Name)** 01 / *Defense Agencies Initiative - Financial System*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DAI Application Development Support Services	C/CPFF	Application Development support to DAI : Virginia	-	-		19.876	Mar 2022	18.474	Mar 2023	-		18.474	Continuing	Continuing	-
Requirements Management (RM) Support	MIPR	DISA : Fort Meade, MD	1.534	0.256	Oct 2020	0.378	Oct 2021	0.389	Oct 2023	-		0.389	Continuing	Continuing	Continuing
DCPDS/DAI Interface File Changes	MIPR	DLA Finance : Fort Belvoir, VA	0.045	0.008	Feb 2021	0.193	Feb 2022	-		-		-	Continuing	Continuing	Continuing
Prior Year Contracts	Option/ Various	MULTI : MULTI	174.443	17.832		0.000		-		-		-	-	-	N/A
		Subtotal	176.022	18.096		20.447		18.863		-		18.863	Continuing	Continuing	N/A

Remarks

Prior Year Contracts include: Global Model Infrastructure C/FFP CACI: Chantilly, VA $20.594 million; Global Model Implementation C/FFP CACI: Chantilly, VA $39.580 million; Global Model Compliance C/FFP CACI: Chantilly, VA $41.422 million; Global Model P2P C/FFP IBM: Bethesda, MD $32.018 million; Global Model A2R C/CPFF CACI Inc Federal: Chantilly, VA $18.845 million; DAI Data Conversion Support Option/FFP Terathink: Reston, VA $2.857 million; Oracle Time & Labor Software License and Maintenance C/FP Mythics, Inc: Virginia Beach, VA $1.020 million; Global Model CAD C/CPFF CSC: Falls Church, VA $3.205 million; Jaws Professional Licenses C/FFP Immix: McLean, VA $0.017 million; Oracle Advanced Compression Licenses $1.622 million; Oracle Contract Lifecycle Management Licenses C/FFP Mythics Inc: Virginia Beach, VA $7.408 million; Oracle Licenses MIPR DISA: Pensacola, FL $5.446 million; Kurzweil 5000 508 Assistive Tech Licenses C/FFP Envision Technology Inc: Bethesda, MD $0.008 million; Dragon Naturally Speaking 508 C/FFP Red River Computer Co: Claremont, NH $0.007 million; DISA/DITCO Delinquent Balance MIPR DISA DITCO: Scott AFB, IL $0.017 million; and DBTA Section 1553 MIPR DFAS: Columbus, OH $0.377 million.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Estimated SBIR/STTR:	TBD	TBD : TBD	3.653	0.712	Jun 2021	1.118	Jun 2022	0.817	Jun 2023	-		0.817	Continuing	Continuing	Continuing
		Subtotal	3.653	0.712		1.118		0.817		-		0.817	Continuing	Continuing	N/A

Remarks

SIBR/SITTR Tax is taken off the topline

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agencies Initiative (DAI) - Financial System*	**Project (Number/Name)** 01 / *Defense Agencies Initiative - Financial System*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DISA Hosting: Test and Development	MIPR	DISA : Pensacola, FL	16.077	2.000	Oct 2021	6.773	Oct 2021	3.000	Oct 2022	-		3.000	Continuing	Continuing	Continuing
Interoperability	MIPR	JITC : Fort Meade, MD	4.200	0.200	May 2021	1.226	Oct 2021	0.079	Oct 2022	-		0.079	Continuing	Continuing	Continuing
Performance and Regression Testing	MIPR	JITC : Fort Huachuca, AZ	4.280	0.300	Nov 2020	1.422	Oct 2021	0.412	Oct 2022	-		0.412	Continuing	Continuing	Continuing
DCPS Testing	MIPR	DFAS : Indianapolis, IN	0.329	0.095	Oct 2020	0.150	Oct 2021	-		-		-	Continuing	Continuing	Continuing
		Subtotal	24.886	2.595		9.571		3.491		-		3.491	Continuing	Continuing	N/A

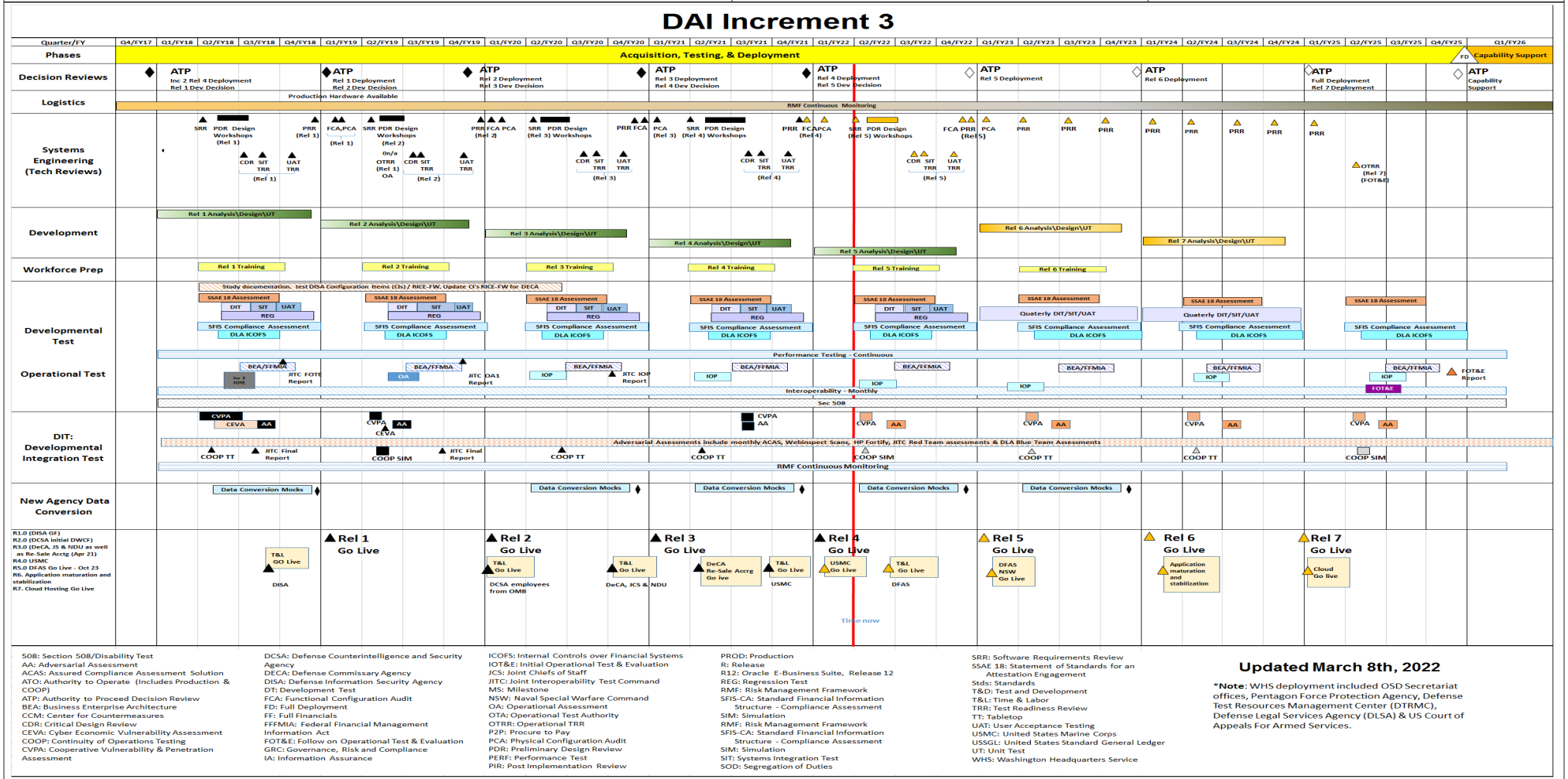
Remarks

Previous MIPR actions: Operational Test and Evaluation, $4.742

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	204.561	21.403		31.136		23.171		-		23.171	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agencies Initiative (DAI) - Financial System*	**Project (Number/Name)** 01 / *Defense Agencies Initiative - Financial System*



508: Section 508/Disability Test
AA: Adversarial Assessment
ACAS: Assured Compliance Assessment Solution
ATO: Authority to Operate (Includes Production & COOP)
ATP: Authority to Proceed Decision Review
BEA: Business Enterprise Architecture
CCM: Center for Countermeasures
CDR: Critical Design Review
CEVA: Cyber Economic Vulnerability Assessment
COOP: Continuity of Operations Testing
CVPA: Cooperative Vulnerability & Penetration Assessment

DCSA: Defense Counterintelligence and Security Agency
DECA: Defense Commissary Agency
DISA: Defense Information Security Agency
DT: Development Test
FCA: Functional Configuration Audit
FD: Full Deployment
FF: Full Financials
FFFMIA: Federal Financial Management Information Act
FOT&E: Follow on Operational Test & Evaluation
GRC: Governance, Risk and Compliance
IA: Information Assurance

ICOFS: Internal Controls over Financial Systems
IOT&E: Initial Operational Test & Evaluation
JCS: Joint Chiefs of Staff
JITC: Joint Interoperability Test Command
MS: Milestone
NSW: Naval Special Warfare Command
OA: Operational Assessment
OTA: Operational Test Authority
OTRR: Operational TRR
P2P: Procure to Pay
PCA: Physical Configuration Audit
PDR: Preliminary Design Review
PERF: Performance Test
PIR: Post Implementation Review

PROD: Production
R: Release
R12: Oracle E-Business Suite, Release 12
REG: Regression Test
RMF: Risk Management Framework
SFIS-CA: Standard Financial Information Structure - Compliance Assessment
SIM: Simulation
RMF: Risk Management Framework
SFIS-CA: Standard Financial Information Structure - Compliance Assessment
SIM: Simulation
SIT: Systems Integration Test
SOD: Segregation of Duties

SRR: Software Requirements Review
SSAE 18: Statement of Standards for an Attestation Engagement
Stds: Standards
T&D: Test and Development
T&L: Time & Labor
TRR: Test Readiness Review
TT: Tabletop
UAT: User Acceptance Testing
USMC: United States Marine Corps
USSGL: United States Standard General Ledger
UT: Unit Test
WHS: Washington Headquarters Service

Updated March 8th, 2022

***Note**: WHS deployment included OSD Secretariat offices, Pentagon Force Protection Agency, Defense Test Resources Management Center (DTRMC), Defense Legal Services Agency (DLSA) & US Court of Appeals For Armed Services.

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agencies Initiative (DAI) - Financial System*	**Project (Number/Name)** 01 / *Defense Agencies Initiative - Financial System*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Defense Agencies Initiative (DAI)				
DAI - - See schedule exhibit for more details	1	2018	4	2025

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency	Date: April 2022
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605502S / *Small Business Innovative Research (SBIR)*

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	59.747	8.606	11.500	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
01: *Small Business Innovative Research*	59.747	8.606	11.500	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Defense Logistics Agency's (DLA's) ability to deliver Americans the right logistics solution in every transaction requires more than successful management of the Agency's wholesale supplies and suppliers. It requires supply chain excellence. Our military's ability to generate and sustain combat readiness indefinitely, anywhere on the globe requires that DLA-managed materiel flow seamlessly and as needed from the nation's industrial base to where it is ultimately used.

DLA's Small Business Innovative Research (SBIR) program seeks to solicit innovative research and development proposals from the small business community to address DLA's strategic and operational requirements. All selections shall demonstrate and involve some technical risk with yet to be determined technical feasibility. Phase I proposals should demonstrate the feasibility of the proposed technology and provide a strong business case for Phase II investment for a prototype or at least a proof-of-concept demonstration. A favorable return on investment and commercialization potential have a strong influence on Phase II selections.

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	8.606	11.500	0.000	-	0.000
Total Adjustments	8.606	11.500	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	8.606	11.500			

Change Summary Explanation

FY 2021:
Defense Logistics Agency (DLA) SBIR/STTR taxes are $4.275 million and Defense Microelectronics Agency (DMEA) are $4.330 million.

FY 2022:
Defense Logistics Agency (DLA) SBIR/STTR taxes are $4.879 million and Defense Microelectronics Agency (DMEA) are $6.621 million.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605502S / *Small Business Innovative Research (SBIR)*	Project (Number/Name) 01 / *Small Business Innovative Research*	

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
01: *Small Business Innovative Research*	59.747	8.606	11.500	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Small Business Innovation Program (SBIP) explores innovative concepts pursuant to Public Law 106-554 (Small Business Reauthorization Act of 2000) and Public Law 107-50 (Small Business Technology Transfer Program Reauthorization Act of 2001), which mandates a two-phase competition for small businesses with innovative technologies with a defense application as well as a commercial value. The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs will develop new dual-use technologies for possible future DLA operational and sustainment requirements. DLA strives to make it fast and easy for customers to work with our Agency by quickly understanding current requirements and anticipating their future needs. In support of the major subordinate commands and military Services, Small Business Innovation Research (SBIR) helps to ensure readiness and lethality across the end-to-end supply chain by optimizing retail and industrial support, which ultimately reduces risk and increases efficiency, and positions solutions for Warfighter requirements.

Dual-use means the technologies will be judged on their potential for future private sector investment both as a vehicle for reducing development time and cost, unit costs of new DLA technologies, and as a route to national economic growth through new commercial products. DLA will conduct the competition as well as award and manage the contracts.

The DLA's SBIR/STTR investments are divided into multiple Research Areas that are aligned with the National Defense Strategy and the DLA Strategic Plan.

DLA R&D SBIP Strategic Focus Areas

- Nuclear Enterprise Support: To maintain nuclear weapons systems readiness, SBIP seeks to qualify alternate sources of supply through the reverse engineering of technical data and/or source approval processes to improve availability for consumable parts for weapons systems with limited or diminishing sources of supply.

- Force Readiness and Lethality: To improve life cycle performance through technological advancement, innovation and reengineering, SBIP strives to mitigate single points-of-failure that threaten the readiness of weapons systems used by our Warfighters.

- Supply Chain Innovation: To maintain a secure and resilient supply chain, SBIP provides opportunities for our small business industrial base to engage in technological innovations that enhance supply chain operations, improve procurement lead times, and reduce life cycle costs.

- Supply Chain Assurance: To ensure supply chain readiness, SBIP endeavors to secure the microelectronics supply chain, adopt industrial base best practices associated with counterfeit risk reduction, and develop a domestic supply of rare earth elements essential to maintain the integrity of DLA’s complex supply chain.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605502S / *Small Business Innovative Research (SBIR)*	**Project (Number/Name)** 01 / *Small Business Innovative Research*

DMEA
- Advanced microelectronics concepts, technologies, and applications

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: SBIR Accomplishments/Plans	8.606	11.500	0.000

Description: DLA FY 2021 SBIR/STTR Accomplishments:
- Grew Small Business capability to combat repair part sourcing challenges associated with weapon system aging, obsolescence, and DMSMS through innovation, reverse engineering, and advanced manufacturing techniques—510 projects awarded; 141 complete
- Developed domestic suppliers for critical REEs, and derived materials and parts, such as magnets. Successfully developed recycling technologies for rare earth elements/magnets and qualified products for a drop-in replacement for high performance weapons systems (i.e. – F-35s/F-16s, JDAMs, turbine engines for various fighter jets, etc.)
- Sponsored innovative manufacturing technologies to enhance supply chain operation and improve weapon system lifecycle performance (i.e. – Fuel Cells, A/C Canopy Seals, Braking Systems, etc.)
- Developed Additive Manufacturing process monitoring and control system for Laser Powder Bed Fusion and Directed Energy Deposition methods – Transition system to OEMs, Army ARL, Air Force, NASA and other research institutions.

DMEA SBIR/STTR:
Continue to seek innovative technical solutions to DOD microelectronics research and development needs and increase private sector commercialization of these innovations.

DMEA FY 2021 SBIR Accomplishments - The SBIR Program contributed to the advancement of microelectronics concepts, technologies, and applications through the following topics initiated in FY21:
- 4H-SiC BiCMOS Development on 6” wafers in a High-Volume Production Foundry
- Highly-Integrated SiC BiCMOS/Power Device Technology: Design, Modeling, and Reliability Metrics
- Manufacturing Platform for High-Temperature CMOS ICs on SiC
- Intelligent Automatic Serial Sectioning using Short Pulse Laser Polygon Scanning
- Robotic Microelectronic Planar Serial Sectioning System (21-RD-282)

DMEA FY 2021 STTR Accomplishments - The STTR Program contributed to the advancement of microelectronics concepts, technologies, and applications through the following topics initiated in FY21:
- Micro-Supercapacitor for Integration with MEMS Energy Harvesting and CMOS ICs
- High-Performance Zinc-ion Hybrid MEMS Supercapacitors with High Energy Density
- Graphenated Carbon Nanotube Based MEMS Supercapacitors
- Energy & Power Densed Supercapacitor: On-Chip Integration in MEMs Fabrication

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605502S / *Small Business Innovative Research (SBIR)*	**Project (Number/Name)** 01 / *Small Business Innovative Research*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
- Integrated Micro Super-Capacitors via Laser Induced Graphene from Photoresist ***FY 2022 Plans:*** DLA SBIR/STTR: - Continue to expand Small Business capability ($2 million) to combat repair part sourcing challenges associated with weapon system aging, obsolescence, and DMSMS through innovation, reverse engineering, and advanced manufacturing techniques - Expand domestic suppliers for critical REEs ($1 million), and derived materials and parts, such as magnets. Refine recycling technologies for rare earth elements/magnets and qualified products for a drop-in replacement for high performance weapons systems (i.e. – F-35s/F-16s, JDAMs, turbine engines for various fighter jets, etc.) - Continue sponsorship of innovative manufacturing technologies to enhance supply chain operation and improve weapon system lifecycle performance ($1 million) (i.e. – Fuel Cells, A/C Canopy Seals, Braking Systems, etc.) - Further deploy and advance Additive Manufacturing process monitoring and control system for Laser Powder Bed Fusion and Directed Energy Deposition methods as well as develop advance Additive Manufacturing metal powder materials ($200 thousand). - The remaining balance ($679 thousand) is for program support, permissible 3% (Admin Plan funding). DMEA SBIR/STTR: Continue to seek innovative technical solutions to DOD microelectronics research and development needs and increase private sector commercialization of these innovations. ***FY 2023 Plans:*** DLA SBIR/STTR: Continue execution of all active Phase I and Phase II SBIR/STTR Projects. Work with other R&D Programs and other divisions with DLA to identify requirements that meet DLA's long and short term Strategic Objectives. Provide adequate guidance and mentorship to Phase II to projects to increase the likelihood of transition into government programs of record or commercial ventures. Issue Phase III contracts. DMEA SBIR/STTR: Continue to seek innovative technical solutions to DOD microelectronics research and development needs and increase private sector commercialization of these innovations. Emerging results from these FY 2022 SBIR efforts will be reported in FY 2023: - Synthesizable Register Transfer Logic (RTL) Assertions			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605502S / *Small Business Innovative Research (SBIR)*	**Project (Number/Name)** 01 / *Small Business Innovative Research*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
- Ultra High Voltage Silicon Carbide (SiC) Gated Devices			
FY 2022 to FY 2023 Increase/Decrease Statement: SBIR and STTR tax amounts are based on enacted budgets. FY 2023 had a higher amount of Congressional Adds than FY 2022.			
Accomplishments/Planned Programs Subtotals	8.606	11.500	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

The SBIR acquisition process seeks to match projects with DLA's Strategic Focus Areas. The goal is to align SBIR/STTR developed technology with current and future DLA requirements. DLA solicits all new project execution work through the DOD SBIR Broad Agency Announcement (BAA). There are three separate solicitation periods throughout each year. (Jan-Feb, May-Jun, and Sep-Oct)

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency	Date: April 2022
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0708012S / *Pacific Disaster Center*

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	12.608	1.720	5.733	1.875	-	1.875	1.896	1.885	1.893	1.907	Continuing	Continuing
03: *Pacific Disaster Center*	12.608	1.720	5.733	1.875	-	1.875	1.896	1.885	1.893	1.907	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Pacific Disaster Center (PDC) has been in operation since February 1996. The PDC is a public/private partnership managed by the University of Hawaii (UH) under a cooperative agreement with the Department of Defense. It is functionally within the organization of the Office of the Under Secretary of Defense (Acquisition and Sustainment) (OUSD(A&S)) and the Defense Logistics Agency (DLA). The PDC is a world-recognized authority and leader in science and information technology applications relating to humanitarian assistance and disaster relief (HA/DR). PDC develops new and innovative technologies to operate an (unclassified) integrated multi-hazard monitoring, early warning and decision support system, called DoD RAPIDS, for the Department.

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	1.785	1.799	0.000	-	0.000
Current President's Budget	1.720	5.733	1.875	-	1.875
Total Adjustments	-0.065	3.934	1.875	-	1.875
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	4.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.065	-0.066			
• Adjustments to Budget Year	-	-	1.875	-	1.875

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2021	FY 2022
Project: 03: *Pacific Disaster Center*		
Congressional Add: *Global Water Security Center*	-	4.000
Congressional Add Subtotals for Project: 03	-	4.000
Congressional Add Totals for all Projects	-	4.000

Change Summary Explanation

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

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708012S / *Pacific Disaster Center*	Project (Number/Name) 03 / *Pacific Disaster Center*	

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
03: *Pacific Disaster Center*	12.608	1.720	5.733	1.875	-	1.875	1.896	1.885	1.893	1.907	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The PDC has provided operational support for an (unclassified) integrated multi-hazard hazard monitoring, early warning and decision support system, called RAPIDS, for the department since 2007. The system, covering global hazard is frequently used by COCOMS, particularly PACOM and SOUTHCOM, for HA/DR missions and exercises, and was recently selected as one of the most effective systems in a position paper by the department, reviewing all unclassified information sharing systems. “Expanded use of RAPIDS across the DoD at the Combatant Commands, Joint Task Force, and by deployed units from the services” was identified as ”a primary Joint Staff objective” in a memorandum dated July 6, 2017. RAPIDS is also regularly used at the National Guard Bureau Joint Operations Center for monitoring events and crises of interest.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Pacific Disaster Center (PDC)	1.720	1.733	1.875
Description: The Under Secretary of Defense for Acquisition and Sustainment, (USD(A&S)), is the Operational Sponsor and functional Office of Secretary of Defense (OSD) Principal Staff Assistant (PSA) for the program. USD(A&S) will continue to provide acquisition oversight authority for the program. The PDC has been in operation since February 1996, as a public/private partnership managed by the University of Hawaii (UH) under a cooperative agreement with the Department of Defense. Pacific Disaster Center (PDC) functions, manpower, and budget resources transferred to the OUSD (A&S) and the Defense Logistics Agency (DLA) in October 2011. The PDC is a world-recognized authority and leader in science and information technology applications relating to humanitarian assistance and disaster relief (HA/DR). PDC’s applications and information products enhance preparedness, situational awareness, and civil-military communications for humanitarian missions worldwide, while its national-level socio-economic Risk and Vulnerability Assessments help inform strategies by measuring indicators for national resiliency using scientific methods. The DLA J32, Strategic Programs and Integration office oversees program management responsibilities related to the PDC. The Program Manager's primary responsibility is for management and stewardship of governmental funds provided in Defense Department appropriations for DoD missions associated with DoD CrM, HA/DR, Theater Security Cooperation, and Defense Support to Civil Authorities (DSCA). In doing this, the Program Management Office develops and provides policy, oversight and guidance, and jointly develops strategic guidelines, programmatic content and priorities with the UH and PDC. The PDC Program Office also serves as a support element of the Hawaii-based organization especially in the area of gaining Federal agency support and resources, as well as business opportunities.			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708012S / *Pacific Disaster Center*	**Project (Number/Name)** 03 / *Pacific Disaster Center*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
FY 2022 Plans: The FY 2022 Annual Plan was published and presented during the Program Management Review in December 2021. Continue to modernize and sustain the DisasterAWARE system to support the DoD's Risk Assessment, Planning and Incidents Decision Support (RAPIDS) as well as DisasterAWARE Pro (supporting the Department's and it's partner's Humanitarian Assistance and Disaster Recovery (HA/DR) and Defense Support of Civil Authorities (DSCA) missions. The plan is also moved to emphasize integration of climate change information, AI tools, and asset protection in support of DoD stakeholders and their missions as part of the new CA strategic alliance with the DoD. ***FY 2023 Plans:*** FY 2023 Annual Plan is to be determined. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Decrease from FY 2022 to FY 2023 is due to the FY 2022 Congressional Add of $4 million for Global Water Security Center.			
Accomplishments/Planned Programs Subtotals	1.720	1.733	1.875

	FY 2021	FY 2022
Congressional Add: Global Water Security Center	-	4.000
FY 2022 Plans: The Global Water Security Center (GWSC) was approved by The University of Alabama's Board of Trustees in June 2021 under the auspices of the University of Alabama's Alabama Water Institute (AWI). Through ground-breaking research and analysis, operationalizing applied science, and developing and implementing best practices in risk communications, GWSC will create the most reliable water and environmental security-related information, tools, and analysis. By communicating to key U.S. decision-makers in contextually appropriate ways, GWSC will aid U.S. water security interests and improve outcomes like water access, food security, economic opportunities, and health. The center's key stakeholders could include: DoD, Intelligence Community, State Department, Coast Guard, USGS, NOAA, FEMA, Red Cross, USAID, and many other academia and private stakeholders. The Global Water Security Center's objectives include: 1) Advancing water and environmental security science by facilitating research through collaborative partnerships with academia, government, and industry. 2) Develop and maintain water and environmental security information and data that are consistent, up-to-date, and reliable. This will improve engagement with partners while encouraging them to integrate the information into key national security work.		

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708012S / *Pacific Disaster Center*	**Project (Number/Name)** 03 / *Pacific Disaster Center*

	FY 2021	FY 2022
3) Advance water and environmental security science by facilitating research through collaborative partnerships with academia, government, and industry.		
Congressional Adds Subtotals	-	4.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

PDC projects beyond the baseline Situational Awareness & Decision Support Applications/Tools architecture (Atlas/DisasterAWARE Pro/RAPIDS) undertaken in support of the DoD Cooperative Agreement (CA) with the University of Hawaii (UH) are from PDC customers (e.g., DoD, NGOs, other nations, academia, and industry). The PDC prepares the public, disaster managers, governments, and others to mitigate the effects of disasters. The goal is to have people and technology work together to preserve life, safeguard livelihoods, protect property to foster disaster-resilient communities. Projects obtained and funded from this customer base serve as a means to determine PDC product and services relevancy. PDC's expanded risk assessments to include scientific measure of Fragility profiles and Women, Peace, and Security (WPS) are received by Dod and other national policy makers as a base to inform the strategic decision-making process.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708012S / *Pacific Disaster Center*	Project (Number/Name) 03 / *Pacific Disaster Center*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PDC Disaster AWARE: Early Warning and Decision Support Applications	MIPR	University of Hawaii Systems : Honolulu, HI	12.608	1.720	Dec 2020	5.733	Dec 2021	1.875	Dec 2022	-		1.875	Continuing	Continuing	Continuing
		Subtotal	12.608	1.720		5.733		1.875		-		1.875	Continuing	Continuing	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	12.608	1.720		5.733		1.875		-		1.875	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708012S / *Pacific Disaster Center*	**Project (Number/Name)** 03 / *Pacific Disaster Center*

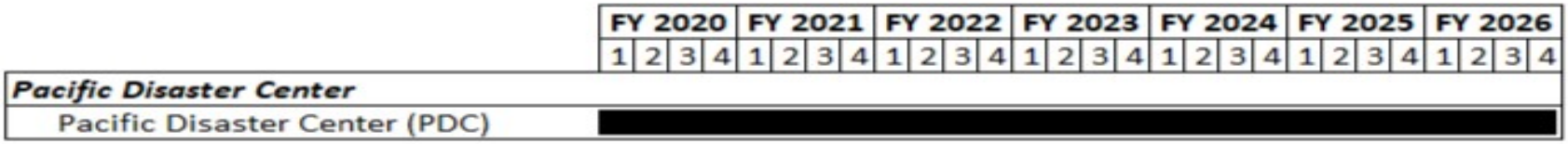


Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency	Date: April 2022
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0708047S *I Defense Property Accountability System (DPAS)*

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	10.176	7.034	6.157	3.264	-	3.264	3.233	3.044	3.059	3.082	Continuing	Continuing
ABC: *DPAS*	10.176	7.034	6.157	3.264	-	3.264	3.233	3.044	3.059	3.082	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Property Accountability System (DPAS) provides the Department an asset accountability system which is fully compliant with financial reporting regulations and has a clean audit history. With an integrated accountability, utilization, maintenance, and warehouse capability, DPAS provides the Department an enterprise solution for asset management.

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	7.301	6.390	0.000	-	0.000
Current President's Budget	7.034	6.157	3.264	-	3.264
Total Adjustments	-0.267	-0.233	3.264	-	3.264
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.267	-0.233			
• Adjustments to Budget Year	-	-	3.264	-	3.264

Change Summary Explanation

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

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency			Date: April 2022
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708047S / *Defense Property Account ability System (DPAS)*	Project (Number/Name) ABC / *DPAS*	

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
ABC: *DPAS*	10.176	7.034	6.157	3.264	-	3.264	3.233	3.044	3.059	3.082	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The DPAS system provides accountability and management functionality of General Equipment, Real Property and Internal Use Software, to the Department. The budgeted projects will provide enhancements to the existing capability, ensure efficient operation, and provide solutions for process gaps as they are discovered. The greater enhancements to DPAS allow the DOD to sunset legacy systems as DPAS assimilates the legacy functionality into the overall operations.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Technical Refresh	7.034	6.157	3.264

Description: During the Technical Refresh, changes to the system processes will be made so accounting transactions for equipment assets from the warehouse portion of the system will mirror the processes in the current Property Accountability. The processes to support the Army to field assets from the Program Executive Offices to their field units will also be in this version.

FY 2021 Accomplishments:
-DPAS completed an interface with the Procurement Integrated Enterprise Environment (PIEE). This interface automated the tracking of transfers between the DoD and Contract Partners and reports those transfers to the Government Furnished Property Registry. This interface is essential to enable the Department to address the material weakness that has been reported to Congress pertaining to Government Furnished Property. DPAS is the only Accountable Property System of Record (APSR) that is currently in compliance with interfacing to the PIEE.

-In FY 2021, the DPAS Program Management Office (PMO) assisted the Joint Strike Fighter (JSF) with the development of their Process Map and physical inventory for their General Equipment. The JSF completed the DPAS implementation of the Government Furnished Equipment and the Program Owned assets. These efforts remediated the accounting and accountability issues associated with the material weakness reported by the DoDIG from the Department-wide financial statement audit.

FY 2022 Plans:
Complete the migration from the DISA environment to the DLA Azure Gov Cloud environment. Complete the Implementation of the Air Force Support Equipment Maintenance Activities and the Air Force Contractor Inventory Control Points for Government Furnished Material.

FY 2023 Plans:

Exhibit R-2A, RDT&E Project Justification: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708047S / *Defense Property Accountability System (DPAS)*	**Project (Number/Name)** ABC / *DPAS*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Complete the technical refresh which includes: improve functionality, increase scalability, upgrade processes, decrease sustainment costs, and improve user experience. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** There was a significant decrease from FY 2022 to FY 2023. Additional funding was appropriated in FY 2022 to support the Technical Refresh.			
Accomplishments/Planned Programs Subtotals	7.034	6.157	3.264

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708047S / *Defense Property Account ability System (DPAS)*	**Project (Number/Name)** ABC / *DPAS*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DPAS Version 7 Development	C/CPIF	Leidos Inc : Camp Hill PA	6.631	0.000		-		-		-		-	0.000	6.631	6.631
DPAS Development 2020.1	C/FFP	Leidos Inc : Camp Hill PA	3.545	0.000		-		-		-		-	0.000	3.545	3.545
DPAS Development Version 2021.1	SS/FFP	Leidos, Inc. : Camp Hill Pa	0.000	7.034	Aug 2021	-		-		-		-	Continuing	Continuing	7.301
DPAS Development Version 2022.1	Option/ FFP	Leidos Inc: : Camp Hill, PA	-	-		6.157	Aug 2022	-		-		-	Continuing	Continuing	6.390
DPAS Development 2023.1	Option/ FFP	Leidos Inc : Camp Hill, PA	-	-		-		3.264	Aug 2023	-		3.264	Continuing	Continuing	3.264
		Subtotal	10.176	7.034		6.157		3.264		-		3.264	Continuing	Continuing	N/A

	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	10.176	7.034		6.157		3.264		-		3.264	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708047S / *Defense Property Accountability System (DPAS)*	**Project (Number/Name)** ABC / *DPAS*

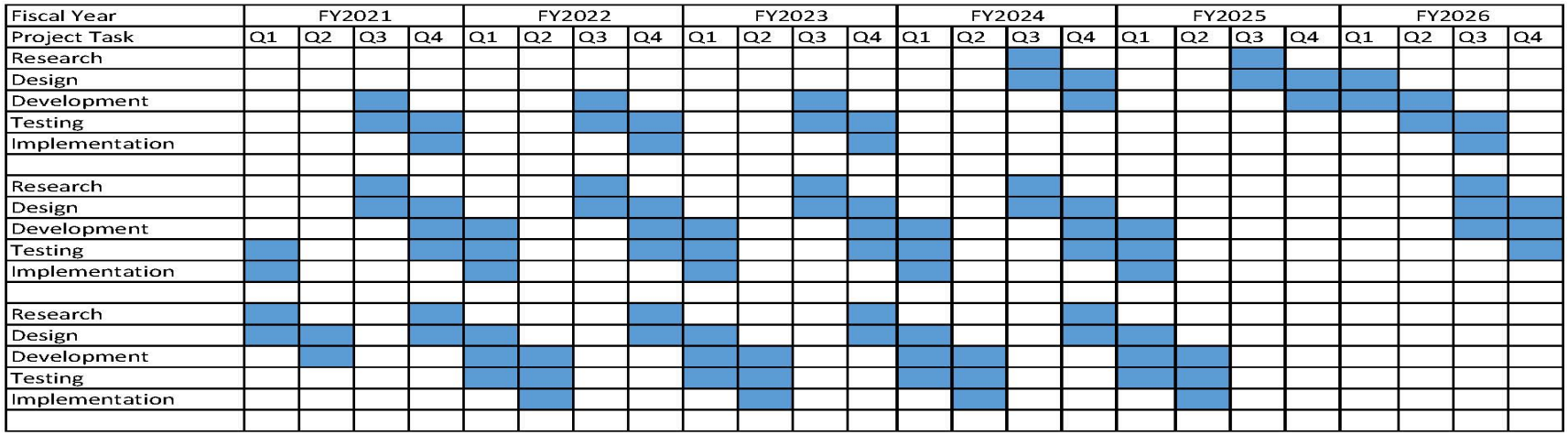


Exhibit R-4A, RDT&E Schedule Details: PB 2023 Defense Logistics Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708047S / *Defense Property Accountability System (DPAS)*	**Project (Number/Name)** ABC / *DPAS*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Defense Property Accountability System (DPAS)				
Defense Property Accountability System (DPAS)	1	2021	4	2026