Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency											Date: February 2018	
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 2017**	**FY 2018**	**FY 2019 Base**	**FY 2019 OCO**	**FY 2019 Total**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**Cost To Complete**	**Total Cost**
Total Program Element	120.123	14.541	10.611	11.778	-	11.778	12.067	12.358	12.548	12.786	Continuing	Continuing
0: *Prior Years*	105.030	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
EMM: *Enhancing Analysis, Modeling, and Decision Support (formerly Analytic & Decision Support)*	3.471	4.090	4.062	4.131	-	4.131	4.223	4.321	4.414	4.496	Continuing	Continuing
GLTD: *Improving Logistics Processes (formerly Logistics Process)*	5.413	4.990	3.849	3.904	-	3.904	4.015	4.128	4.214	4.280	Continuing	Continuing
04: *Emergent Logistics R&D Requirements (formerly Innovative Products & Services for DLA Customers)*	6.209	5.461	2.700	3.743	-	3.743	3.829	3.909	3.920	4.010	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Logistics Agency is responsible for providing to the Military Services, and 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 forces need to operate – including food, uniforms, fuel and energy, medical supplies, construction and barrier materials and equipment, and more than 85 percent of the military's spare parts. DLA also provides logistics services including logistics information data, manages the reutilization of military equipment, and documents automation and production services. DLAs 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. Logistics R&D develops and demonstrates high risk, high payoff technology that provides a significantly higher level of support at the lowest possible costs.

The DLA Log R&D program is organized into three SFAs:
•Enhancing Analysis, Modeling, and Decision Support: R&D 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.
•Improving Logistics Processes: R&D efforts to develop and implement advanced technology in logistics processes over and above current baseline systems.
•Emergent Logistics R&D Requirements: R&D efforts to support emergent Logistics R&D requirements that arise out of the budget cycle. These out of cycle requirements always occur. The 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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	11.011	10.611	11.881	-	11.881
Current President's Budget	14.541	10.611	11.778	-	11.778
Total Adjustments	3.530	0.000	-0.103	-	-0.103
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	4.000	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.037	-			
• SBIR/STTR Transfer	-0.433	-			
• Inflation Adjustment	-	-	-0.103	-	-0.103

Change Summary Explanation

In FY2017, the Logistics R&D program received a Congressional Add for $4M to support and advance cellulosic biofuels. The program reprogramed funds to Manufacturing Technology in the amount of $0.037M. In FY2017, the Small Business Innovation Research and Small Technology Transfer Research tax amounted to $0.433M.

Inflation adjustments for Non-Pay/Non-Fuel Pay purchases and Civilian Pay decreased the program baseline in FY2019.

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency			Date: February 2018
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	Project (Number/Name) 0 / *Prior Years*	

COST ($ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
0: *Prior Years*	105.030	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Prior Years include:

-Medical Logistics Network (MLN): $10.334M. This project was realigned to Strategic Focus Area (SFA) Emergent Logistics R&D Requirements. The MLN program supports the Medical Directorate's mission to develop and implement the critical logistics and medical supply chain business practices that ensure the cost-effective and efficient distribution of medical materiel to the full range of Military Health System operations.

-Weapon System Sustainment (WSS): $29.625M. This project was realigned to SFA Improving Logistics Processes. The WSS program spans multiple weapon systems and supply chains to improve internal processes, provide new methods, reduce costs and lead times, and ultimately, improve readiness for DLA customers.

-Supply Chain Management (SCM): $20.574M. This project was realigned to SFA Emergent Logistics R&D Requirements. The SCM program provides the Agency with the resources needed to quickly take advantage of new ideas emerging from the Center Commanders, Process Owners, or Staff Directors.

-Strategic Distribution & Disposition (SDD): $19.396M. This project was realigned to SFA Enhancing Analysis, Modeling, and Decision Support. The SDD program improves DLA's distribution and disposition capabilities, operational effectiveness, and efficiency in support of the Services, COCOMs, and DOD in CONUS, OCONUS, and deployed locations.

-Energy Readiness Program (ERP): $15.796M. This project was realigned to SFA Emergent Logistics R&D Requirements. The ERP includes Program Management Office Support (PMO) for developing program strategies and goals; Alternate Energy Development (AED) to include test and certification to support the addition of synthetic and alternative fuels to mobility fuel specifications and acquisition plan; Improving Class IIIB supply chain through Current Product Improvement (CPI) (such as the study and development of fuel additives and studies to increase sources of supply) and Infrastructure & Process Improvement (such as the development of analytical tools).

-Defense Logistics Information Research (DLIR): $9.305M. This project was realigned to Industrial Manufacturing PE 70708011S. The DLIR program researches, identifies, and implements potential or existing technologies using high-risk, high payoff tools, methods, techniques, and products. DLIR improves functional and business processes using the latest technologies available to support the nation's warfighter. The technical areas of interest is the development of Logistics Data Interoperability & Availability. Enhances the functionality and compatibility of data in a complex data environment using supply chain relationships and lifecycle management to allow flexible visibility.

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency			Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
EMM: *Enhancing Analysis, Modeling, and Decision Support (formerly Analytic & Decision Support)*	3.471	4.090	4.062	4.131	-	4.131	4.223	4.321	4.414	4.496	Continuing	Continuing

A. Mission Description and Budget Item Justification

This 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. The Strategic Distribution and Disposition (SDD) thrust will develop and implement analytical tools, models, and simulations of logistics and supply chain processes related to distribution and disposition.

The mission of the SDD program is to assist DLA Distribution and Disposition Services in anticipating, assessing, and meeting current and future Warfighter requirements by leveraging R&D to infuse innovative solutions.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2017	FY 2018	FY 2019
Title: Enhancing Analysis, Modeling, and Decision Support	4.090	4.062	4.131
FY 2018 Plans: SDD will complete the lead-acid and Lithium-Ion battery technology projects in support DLA Distribution and provide support to the Distribution Modernization Program (DMP) to identify, evaluate, and test disruptive technologies.			
FY 2019 Plans: SDD plans to continue providing analytical and decision support to DLA Distribution and Disposition Services providing advanced analytical tools such as Business Case Analyses (BCAs) that support DLA Distribution and Disposition Services strategic decisions. Additionally, SDD will continue to support the Distribution Modernization Program as necessary to identify, evaluate, and test disruptive technologies including drone technologies applicable to distribution and disposition.			
FY 2018 to FY 2019 Increase/Decrease Statement: No significant Increase/Decrease in FY19 Budget for SDD.			
Accomplishments/Planned Programs Subtotals	4.090	4.062	4.131

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency		Date: February 2018
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)*

C. Other Program Funding Summary ($ in Millions)

Remarks

Due to the decline of planned requirements, the Medical Logistics Network realigned to the Emergent Logistics R&D Requirements SFA in FY19.

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.

E. Performance Metrics

40% of applicable projects (ex. non-studies) will transition.

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency			Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
GLTD: *Improving Logistics Processes (formerly Logistics Process)*	5.413	4.990	3.849	3.904	-	3.904	4.015	4.128	4.214	4.280	Continuing	Continuing

A. Mission Description and Budget Item Justification

Logistics Processes are R&D efforts within the Weapon System Sustainment Program (WSS) undertaken to develop and implement advanced technology in the internal DLA logistics processes. 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.

This strategic focus area has 2 thrusts: Technical/Quality (T/Q) Process Improvements and Selected Process Improvements.

T/Q Process Improvements to reduce material and internal costs and improve support to warfighters. Services have engineering responsibility for most Class IX parts. Many T/Q sub-processes involve interactions with Service engineering functions, which often are time-consuming and costly. Other key T/Q sub-processes are essential to the procurement function, such as analysis of parts content, source capabilities and problem resolution.

Selected Process Improvements cover processes outside the scope of the Technical/Quality (T/Q) function. Although all DLA processes are in scope, the focus for FY 2019 is on the Procurement process, especially aspects driving internal costs and delays in awards.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2017	FY 2018	FY 2019
Title: Improving Logistics Processes (LP)	4.990	3.849	3.904
FY 2018 Plans: In FY2018, WSS will work with procurement to implement their long-term process improvement plans. Projects will focus on the areas of obtaining Market Intelligence, Industrial Outreach, and Long-Term Contract cost reduction. WSS will work with TQ to develop an Anti-Counterfeiting Roadmap of projects aimed at identifying and eliminating the threat of counterfeit parts entering the supply chain.			
FY 2019 Plans: In FY2019, WSS will continue working with Procurement to implement their long term process improvement plans to include follow on projects in the areas of Administrative and Production Lead Time Management. Another main thrust for FY2019 will be the execution of projects identified in the Anti-Counterfeiting Roadmap of FY2018.			
FY 2018 to FY 2019 Increase/Decrease Statement:			

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency		Date: February 2018
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 2017	FY 2018	FY 2019
No significant Increase/Decrease in FY19 Budget.			
Accomplishments/Planned Programs Subtotals	4.990	3.849	3.904

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.

E. Performance Metrics

40% of applicable projects (ex. non-studies) will transition.

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency			Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
04: *Emergent Logistics R&D Requirements (formerly Innovative Products & Services for DLA Customers)*	6.209	5.461	2.700	3.743	-	3.743	3.829	3.909	3.920	4.010	Continuing	Continuing

A. Mission Description and Budget Item Justification

Emergent Logistics R&D SFA includes R&D efforts to develop new products and services for DLA customers. The 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) Roadmap addresses emerging and out of cycle requirements that always occur and new products and services developed by DLA to include investments to qualify domestic, ultra-high modulus, carbon fiber material for Defense and National Security space systems in order to mitigate the supply chain costs and risks of this strategic material.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2017	FY 2018	FY 2019
Title: Emergent Logistics R&D Requirements	5.461	2.700	3.743
FY 2018 Plans: SCM will continue to address the emerging technology opportunities that occur out of the budget cycle. This allows DLA to get a head start undertaking new technological advances without disrupting ongoing programs. In the past DLA R&D has been able to cut 12 to 24 months off the project starting lead-times. Saving the lead-time allows the agency to begin to realize the benefits of implementing new technology sooner than would otherwise be the case and maintain continuity of funding and activity for baseline programs. The Program will initiate the Advanced Thermoelectric Technology project to improve the current thermoelectric heater technology so it is more fuel-efficient, has an increased heating range, reduced maintenance requirements, and a longer service life. The Advanced Thermoelectric Heater will replace the existing Space Heater Convective standard heaters currently stocked at DLA, and will provide DoD a single, versatile heater that reduces the logistics footprint and satisfies the space heating requirements of expeditionary forces. Additionally, SCM will support DLA Strategic Materials with one or more cost saving opportunities that exist for DLA via recycling and recovery initiatives. In FY18, the AM project will be funded under PE 0603680S / Manufacturing Technology Program (ManTech) Project 7 - Improving Industrial Base Manufacturing Processes (formerly Material Availability). This realignment will maintain continuity of funding and activity for this program.			

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency		Date: February 2018
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 2017	FY 2018	FY 2019
ERP will continue to focus on providing additional alternatives for military unique fuels, 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. ***FY 2019 Plans:*** SCM will continue to address the emerging opportunities that occur in the supply chain. Initiatives will align strategically and produce benefits such as reduced operating costs, enhanced organizational responsiveness and reliability, network resiliency, and streamlined customer service. Emerging technology requirements for the medical supply chain will be addressed, as appropriate in SCM. (Mission moved from Enhancing Analysis, Modeling, and Decision Support SFA.) Additionally, SCM will complete the Advanced Thermoelectric Technology project to improve the current thermoelectric heater technology so it is more fuel-efficient, has an increased heating range, reduced maintenance requirements, and a longer service life. The Advanced Thermoelectric Heater will replace the existing Space Heater Convective standard heaters currently stocked at DLA, and will provide DoD a single, versatile heater that reduces the logistics footprint and satisfies the space heating requirements of expeditionary forces. Strategic Materials: Program will address supply chain risks in Strategic and Critical Materials as needed to include qualifying alternate materials and sources, recycling or reclaiming strategic materials, and developing new manufacturing processes for strategic materials. Artificial Intelligence technologies applicable to logistics operations will be investigated and, where appropriate, prototyped. Applications for Block Chain technologies will be investigated and prototyped in the SCM SFA. 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). The program will continue to assist the military services in the qualification and certification of alternative fuels to meet military specification requirements; this will be parallel to the availability of military resources necessary to complete these efforts. The ERP program will investigate and prototype, as appropriate, drone technologies applied to the energy operations. ***FY 2018 to FY 2019 Increase/Decrease Statement:*** Funding increased to develop improvements in the Class IIIB fuel and energy supply chain and support research in the areas of alternative bulk liquid fuels and alternative energy for the military services. Specifically Test Method Developments/Revisions, Fuel Chemistry and Contamination Identification / Characterization, and Logistics systems Improvements/Enhancements.			
Accomplishments/Planned Programs Subtotals	5.461	2.700	3.743

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency		Date: February 2018
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)*

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.

E. Performance Metrics

40% of applicable projects (ex. non-studies) will transition.