Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Logistics Agency	Date: May 2017
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605502S *I Small Business Innovative Research (SBIR)*

COST ($ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	17.516	5.524	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
1: *Small Business Innovative Research (SBIR)*	17.516	5.524	0.000	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 superior management of the Department'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 flows 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 technical applications of existing technologies to solve current and future agency requirements. Proposals from the small business community will fulfill this requirement. All selections shall demonstrate and involve a reasonable degree of technical risk with yet to be determined technical feasibility. Phase I proposals should demonstrate feasibility of the proposed technology and the merit supporting a Phase II award. Direct impact on a DLA solution, future market possibilities and demonstrated commercialization potential have a strong influence on Phase II selections.

B. Program Change Summary ($ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	5.524	0.000	0.000	-	0.000
Total Adjustments	5.524	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	5.524	-			

Exhibit R-2A, RDT&E Project Justification: FY 2018 Defense Logistics Agency			Date: May 2017
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605502S / *Small Business Innovative Research (SBIR)*	Project (Number/Name) 1 / *Small Business Innovative Research (SBIR)*	

COST ($ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
1: *Small Business Innovative Research (SBIR)*	17.516	5.524	0.000	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

This project 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 Defense Logistics Agency (DLA) needs. 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 Defense Logistics Agency's SBIR/STTR investments are divided into multiple Research Areas identified from within several DLA Elements:

DLA J3 R&D
- Additive Manufacturing
- Advanced Battery Manufacturing
- Advanced Aircraft Braking Systems
- Anti-Counterfeiting
- Medical 3D Printing
- Seamless Fuel Bladders
- Strategic Materials
- Warehouse Modernization
- Subsistence
- Limited Source NSN List (Source Approval Request (SAR) Development)
- Reverse Engineering Technical Data Packages

DMEA
- Advanced microelectronics concepts, technologies, and applications.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
Title: SBIR Accomplishments/Plans	5.524	0.000	0.000

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
FY 2016 Accomplishments: DLA SBIR: Executed of all active Phase I and Phase II SBIR/STTR Projects. In the DOD-wide 2016.1 solicitation, DLA selected 11 new Phase I projects and 1 Direct to Phase II project. The 16.3 solicitation yielded 4 new Phase I projects and the 16.3 solicitation is expected to produce 4 new Phase I projects. In FY16, the program awarded 6 new Phase II awards. All Phase II awards utilized OSD/OSBP funding ($8M) documented on DD form 1144. Upon completion, all active Phase I projects have the opportunity to compete for Phase II awards. DLA STTR: Executed of all active Phase II STTR projects. DLA STTR awarded 3 New Phase I contracts exhausting FY15 funds. Upon completion, all active Phase I projects have the opportunity to compete for Phase II awards. DMEA SBIR: Completed feasibility studies for quantum cryptography single-photon detector chip. Completed a feasibility study for rapid and agile detection of counterfeit microelectronics by illuminating devices with RF energy and acquiring the subsequent emission signature. Completed a feasibility study for high-resolution x-ray microscopy of microelectronic devices. Completed feasibility studies for the analysis of integrated circuits using limited x-rays. Completed prototype development for a high-efficiency, high-resolution x-ray system for inspecting integrated circuits. DMEA STTR: Completed feasibility studies for developing a ZnS scintillator for high-resolution x-ray imaging of integrated circuits at 9KeV, and for developing a new sensor for 9KeV high resolution x-ray microscopy.			
FY 2017 Plans: DLA SBIR: To continue execution of all active Phase I and Phase II SBIR/STTR Projects. In the DOD-wide 2017.1 solicitation, DLA expects two new topics. Anticipate the selection of one to three topics per area. Upon completion, all active Phase I projects have the opportunity to compete for Phase II awards. DLA expects to award 6 new Phase II awards. All Phase II awards utilize OSD/OSBP funding ($6M) documented on DD form 1144. DLA STTR: To continue execution of all active Phase I STTR projects. Upon completion, all active Phase I projects have the opportunity to compete for Phase II awards. Expect to award a single Phase II in late FY17. This will exhaust all FY16 and FY17 STTR funds. DMEA SBIR: DMEA will continue execution of all active SBIR projects. All active Phase I projects have the opportunity to progress to Phase II. DMEA will begin to study the feasibility of a high-brilliance 9KeV x-ray source. DMEA will complete prototype development for a broadband quadrature mixer with integrated I/Q mismatch calibration, and a nano-resolution 3D integrated circuit reconstruction system.			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
DMEA STTR: DMEA will continue execution of all active STTR projects. All active Phase I projects have the opportunity to progress to Phase II. DMEA will begin to study the feasibility of developing an optical metrology system for measuring the thickness of thin films on top of sapphire substrate wafers. ***FY 2018 Plans:*** DLA SBIR/ STTR: To continue execution of all active Phase I and Phase II SBIR/STTR projects. DLA expects to award 6-10 new Phase I awards, and 6-8 new Phase II awards. DMEA SBIR/STTR: DMEA will continue to seek innovative technical solutions to DoD microelectronics research and development needs and increase private-sector commercialization of these innovations.			
Accomplishments/Planned Programs Subtotals	5.524	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

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.

E. Performance Metrics

SBIR /STTR programs measure performance in two separate metrics:

1. Phase Progression: In terms of progression from Phase I to Phase II and Phase II to Phase III, DLA deems each successive progression success. DLA seeks to have a 50% progression from one Phase to the next as a minimum.

2. Commercialization: The Congressional language defines "Commercialization," which is clarified by the Office of Secretary of Defense Office of Small Business Programs (OSD/OSBP) Re-Authorization Policy Directive:
- (Investment) The process of developing products, processes, technologies, or services; and/or
- (Sales) The production and delivery (whether by the originating party or by others) of products, processes, technologies, or services for sale to or use by the Federal Government or commercial markets

The Small Business Administration and OSD/OSBP assign a Commercialization Index based on progression within the Phases and reported successes.