Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	89.470	20.405	22.605	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
1: *Combat Rations (CORANET)*	6.158	0.474	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
2: *Customer Driven Uniform Manufacture (CDUM)*	15.175	3.324	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
3: *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*	10.327	2.082	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
4: *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*	4.623	1.004	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
5: *Material Acquisition Electronics (MAE)*	46.844	11.552	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
6: *Battery Network (BATTNET)*	6.343	1.969	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
7: *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*	0.000	0.000	4.875	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
8: *Maintaining Viable Supply Sources (formerly High Quality Sources)*	0.000	0.000	12.373	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
9: *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*	0.000	0.000	5.357	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Logistics Agency (DLA) Industrial Preparedness Manufacturing Technology (IP ManTech) Program supports the development of a responsive, world-class manufacturing capability to affordably meet the warfighters' needs throughout the defense system life cycle. IP ManTech: Provides the crucial link between invention and product application to speed technology transitions. The program matures and validates emerging manufacturing technologies to support low-risk implementation in industry and Department of Defense (DoD) facilities, e.g. depots and shipyards. It addresses production issues early by providing timely solutions, thereby reducing risk and positively impacting system life cycle affordability by providing solutions to manufacturing problems before they occur.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*

Beginning in FY 16 DLA ManTech was realigned into three Strategic Focus Areas (SFA): 1) Improving Industrial base Manufacturing Processes; 2) Maintaining Viable Sources of Supply; and 3) Improving Technical and Logistics Information.

• The Improving Industrial Base Manufacturing Processes SFA includes efforts to reduce industrial base material costs and production lead-times, while improving the quality of DLA managed products. This SFA subsumed the former supply chain oriented efforts in Subsistence Network (formerly Combat Rations Network for Technology Implementation), Procurement Readiness Optimization—Advanced Casting Technology (PRO-ACT), Procurement Readiness Optimization—Forging Advance System Technology (PRO-FAST), and Battery Network (BATTNET). New manufacturing processes within the scope of this SFA include emerging technologies such as Additive Manufacturing.

• Maintaining Viable Supply Sources includes efforts to assure the commercial industrial base can satisfy DLA materiel requirements. This SFA subsumed the Material Acquisition Electronics ManTech efforts. In the future it will include other DLA efforts to maintain a viable industrial capability in areas such as Strategic Materials.

• The Improving Technical and Logistics Information SFA include efforts to improve and facilitate the exchange of engineering and logistics information among DLA industry partners and customers. It includes the MANTECH program Military Uniform System Technology (MUST) (formerly Customer Driven Uniform Manufacturing) and the Defense Logistics Information Research Program from P.E. 0603712S. 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.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	22.366	24.605	24.865	-	24.865
Current President's Budget	20.405	22.605	0.000	-	0.000
Total Adjustments	-1.961	-2.000	-24.865	-	-24.865
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-2.000			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-1.320	-			
• SBIR/STTR Transfer	-0.641	-			
• Program Fund Realignment from BA07 to BA03 PE 0603680S	-	-	-34.211	-	-34.211
• Internal Fund Realignment	-	-	9.346	-	9.346

Change Summary Explanation

Over the FY 17 $9.346M was realigned to the ManTech PE from the DLA Log R&D PE (0603712S) and DLA Procurement Defense-Wide Fund. These funds will address critical shortfalls in the Improving Industrial Base Manufacturing Processes and Maintaining Viable Supply Sources. The largest requirement was in the Maintaining Viable Supply Sources to develop a long-term, reliable source of linear microcircuits. These devices are critical to maintaining the readiness of front line weapon system electronics. High priority requirements in the Improving Industrial Base Manufacturing Processes SFA included additional funding for battery technology, castings and forging manufacturing technology.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 1 / *Combat Rations (CORANET)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
1: *Combat Rations (CORANET)*	6.158	0.474	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

In 2015, DLA R&D expanded the Combat Rations Network (CORANET) program to include the "Subsistence Supply Chain," which consists of the supply chain for military subsistence, including combat rations, field feeding equipment, garrison feeding and "market fresh." The Subsistence Network (SUBNET) Program is a Manufacturing Technology Program and is the successor to the CORANET R&D program. SUBNET will form a community of practice 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. Funding and technical work for the SUBNET program has been reallocated to the Material Availability Strategic Focus Area. The SUBNET program engages all elements of the supply chain including the producers, military services, Army Natick Soldier Research Development and Engineering Center, United States Department of Agriculture (USDA), US Army Veterinary Command, US Army Public Health Command, DLA Logistics R&D, DLA Troop Support Subsistence and academia to research, leverage, implement, and transition improved technologies in the subsistence supply chain.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Combat Rations (CORANET)	0.474	0.000	-
FY 2015 Accomplishments: Completed phase II (identified products to test) of the Microwave Assisted Thermal Sterilization (MATS) of Group-sized Combat Rations and begin implementation for MATS processing to determine if other rations can benefit from the same pilot process as a second wave of MATS initiatives. Kick-off of the new short-term project (STP), Meal-Ready to Eat (MRE) Alternate Chemical Resistant Pouch Laminate to identify alternate materials for MRE pouches needed for high acid food products. Additionally, completed Phase I (establish baseline temperature) and began Phase II (determine food quality degradation system) of the Combat Ration Shelf-Life Temperature Monitoring. Further, completed phase I (establish inspection baseline) and began Phase II, which is to analyze and optimize inspection and propose strategies that will reduce the overall inspection cost associated with combat rations without affecting the quality of the product.			
FY 2016 Plans: Finalize SUBNET Broad Agency Announcement (BAA). Efforts related to SUBNET have been moved to the Improving Industrial Base Manufacturing Processes (formerly Material Availability Strategic Focus Area).			
Accomplishments/Planned Programs Subtotals	0.474	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 1 / *Combat Rations (CORANET)*

D. Acquisition Strategy

N/A

E. Performance Metrics

The Subsistence Network plan is to execute reductions in cost and/or as applicable improve processes in the subsistence supply chain related to shipping, storage, inventory, waste and inspections, and quality of products, as well as reduce lead times for combat ration production, field feeding equipment, garrison feeding and market fresh (bread and dairy) products.

Specific technical achievements of the Microwave Assisted Thermal Sterilization (MATS) project will include demonstrating MATS production capability to sterilize group-sized entrees and components, packaged in institutional sized pouches and polymeric trays. Rations processed through MATS should offer substantial cost benefits over current retorted or thermally processed rations due to fast heating rate, high energy efficiency, increased production, reduced labor, improved quality, and a flexibility of differential heating for multi-components trays or pouches to preserve the optimal quality of individual components. MATS will also produce products with better taste and texture, higher nutrient retention, longer shelf life, greater menu variety, and ultimately greater consumption of rations and less food waste.

Specific technical achievements of the MRE Alternate Chemical Resistant Pouch Laminate will include evaluating various alternate sealant layers and test them for acid resistance, as well as overall performance in the MRE ration ultimately leading to the identification and production of alternate sealant layers for high acidic foods. The project will mitigate current risks in the material supply chain and establish reliable production for advanced pouch materials. Additionally, through this project the use of glass bottles for hot sauce and eliminating pouches for more viscous products such as ketchup and mustard that might not have a three-year shelf life.

Specific technical achievements of the Combat Rations Shelf Life Temperature Monitoring will include achieving a level of new regulatory compliance via monitoring temperature variations in the San Joaquin, CA warehouse where subsistence is being stored and assembled into Unitized Group Rations. The results will identify a range of cost effective device solutions and storage mediation practices. The solution sets will determine shelf life (food quality and safety) degradation to ration components (pre and post assembly) and improve information to the customer.

Specific technical achievements of the Optimize Combat Rations Inspection Costs will include reducing inspection cost performed by two government agencies and ration producer through the elimination of duplicate tests for the same quality attribute that is performed. Based on internal reviews and assessments, proposed solutions will be identified and further evaluated for optimal inspection frequencies and sample sizes in order to minimize cost while maintaining quality and safety goals. The optimized inspection methods that show the most promising strategies and solutions (biggest cost impacts) and quickest return on investment without sacrificing overall product quality for the customer will be verified.

At least 50% of the completed short-term projects will transition in 2016, and OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 1 / *Combat Rations (CORANET)*	

Support ($ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Manufacturing Technology Development – Combat Rations	C/CPFF	Rutgers State University of New Jersey Division of Grants & Contract Accounting : NJ	2.800	0.200	Apr 2015	-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Alion Science and Technology Corporation : IL	0.000	0.274	Aug 2015	0.000		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Clemson University : SC	0.180	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Michigan State University : MI	0.040	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	SOPAKO Inc : SC	0.040	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	University of Illinois : IL	0.420	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	University of Tennessee : TN	0.620	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Washington State University : WA	0.420	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Cadillac Products Inc. : MI	0.220	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Oregon Freeze Dry Inc : OR	0.040	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Research and Development Associates : TX	0.040	-		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 1 / *Combat Rations (CORANET)*

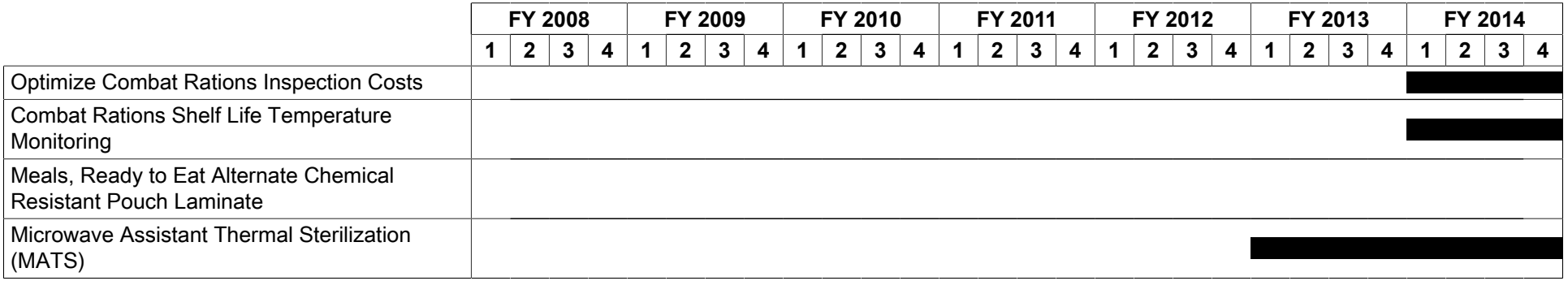
Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Manufacturing Technology Development – Combat Rations	C/CPFF	The Wornick Company : AL	0.434	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Sterling Foods : TX	0.320	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Virginia Polytechnic Institute and State University : VA	0.040	-		-		-		-		-	-	-	-
Combat Rations -- Scientific Engineering and Technical Assistance (SETA)	C/FP	Male Duck Inc : VA	0.200	-		-		-		-		-	-	-	-
Combat Rations -- Scientific Engineering and Technical Assistance (SETA)	C/FP	Analytic Strategies Inc. : VA	0.344	-		-		-		-		-	-	-	-
		Subtotal	6.158	0.474		0.000		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	6.158	0.474		0.000		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 1 / *Combat Rations (CORANET)*



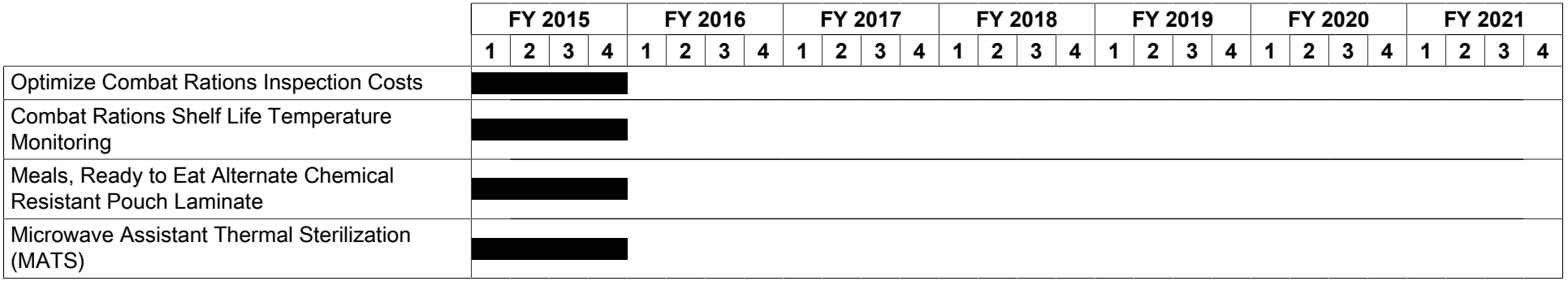


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 1 / *Combat Rations (CORANET)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Optimize Combat Rations Inspection Costs	1	2014	4	2015
Combat Rations Shelf Life Temperature Monitoring	1	2014	4	2015
Meals, Ready to Eat Alternate Chemical Resistant Pouch Laminate	1	2015	4	2015
Microwave Assistant Thermal Sterilization (MATS)	1	2013	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 2 / *Customer Driven Uniform Manufacture (CDUM)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
2: *Customer Driven Uniform Manufacture (CDUM)*	15.175	3.324	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

The Department of Defense, through the Defense Logistics Agency, spends upwards of $2 billion per year on military uniforms and individual equipment. The lead-time is up to 15 months for these items. The CDUM program concluded in October 2014, and the results have been implemented DOD wide for recruit items. Residual CDUM projects have been transitioned into the Military Unique Sustainment Technology (MUST) Program. The MUST Program was initiated in 4th quarter 2014. The strategic objective of the DLA MUST program is to identify, develop and adopt technologies that can significantly reduce the lead-time between Individual Item and Equipment (IIE) development and sustainment from years to months. The Program focuses on technologies that will transform the military IIE supply chain from an “electronic paper” (i.e. PDF/MS Word) based, manual environment into a knowledge based automated environment. The resulting approach will be a neutral platform that will seamlessly communicate military unique technical requirements throughout the end to end supply chain.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Customer Driven Uniform Manufacture (CDUM)	3.324	0.000	-
FY 2015 Accomplishments: The program has established a roadmap for key technology development areas that will establish knowledge based approach to demonstrate the viability and benefits of the Knowledge Base Approach recommended by the GAO.			
FY 2016 Plans: Efforts related to Program have been moved to Improving Technical and Logistics Information (formerly Industry and Customer Collaboration) SFA.			
Accomplishments/Planned Programs Subtotals	3.324	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Improved Service collaboration and reduced lead-time to introduce new military uniform and individual equipment items.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 2 / *Customer Driven Uniform Manufacture (CDUM)*

Improved Service/DLA collaboration on requirement changes and improved communication of those changes to the industrial base.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 2 / *Customer Driven Uniform Manufacture (CDUM)*

Support ($ in Millions)

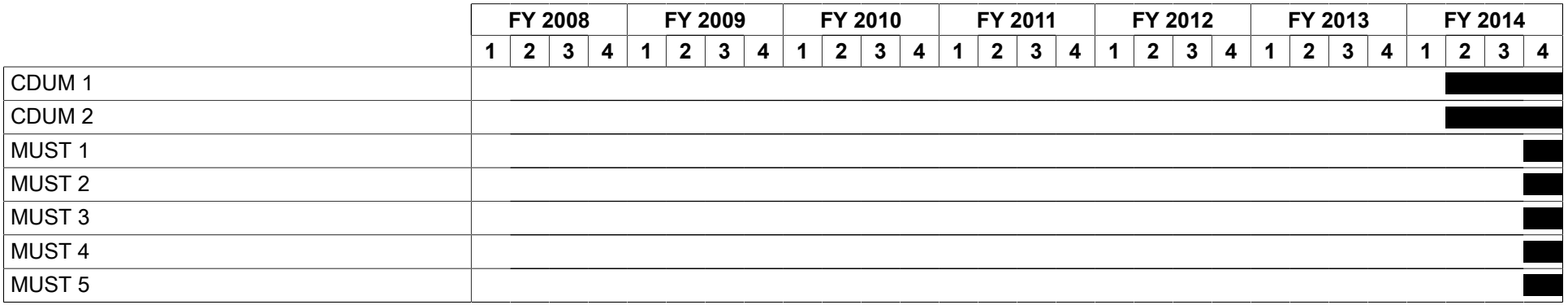
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Advantech, Inc : MD	2.510	0.967	Mar 2015	-		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Logistics Management Institute : VA	3.893	1.358	Mar 2015	-		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	XSB Inc : NY	1.910	0.950	Sep 2015	-		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Clemson University : SC	0.109	0.015	Aug 2015	-		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	PDIT : SC	0.000	0.034	Nov 2015	-		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Patricio Enterprises : VA	3.501	-		-		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	MIPR	Alion Science and Technology Corp : VA	3.237	-		-		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	ZWeave Inc. : VA	0.015	-		-		-		-		-	-	-	-
		Subtotal	15.175	3.324		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 2 / *Customer Driven Uniform Manufacture (CDUM)*	

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	15.175	3.324		0.000		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 2 / *Customer Driven Uniform Manufacture (CDUM)*



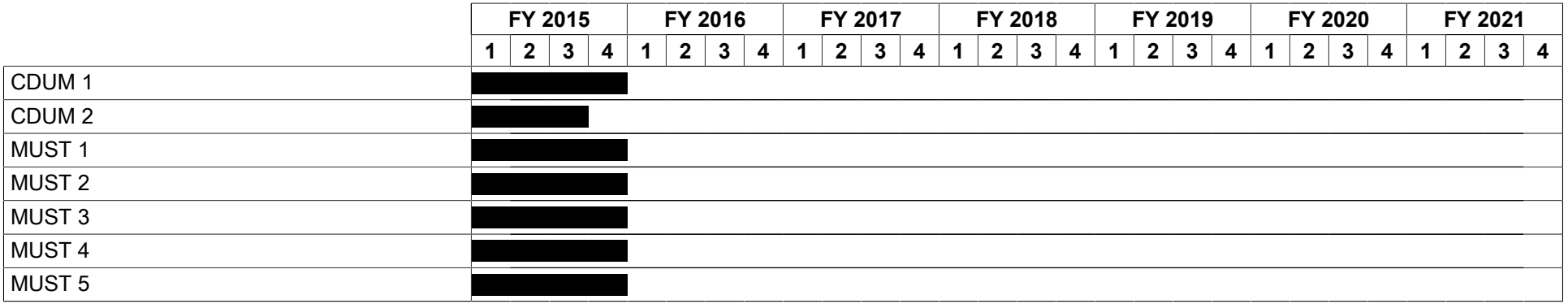


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 2 / *Customer Driven Uniform Manufacture (CDUM)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
CDUM 1	2	2014	4	2015
CDUM 2	2	2014	3	2015
MUST 1	4	2014	4	2015
MUST 2	4	2014	4	2015
MUST 3	4	2014	4	2015
MUST 4	4	2014	4	2015
MUST 5	4	2014	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 3 / *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
3: *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*	10.327	2.082	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

The Castings consortium objective is to develop new materials and technologies for the metalcasting industry to help DLA improve the supply of parts that contain castings. 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 ~2% of National Stock Numbered Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered up to 10% are castings. 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 foundry industry, where the technologies will be tested and implemented in conjunction with the industry associations. These advancements will improve the metal casting supply chains for the DOD and the DLA to better support the warfighter. This is achieved through investments in projects aimed at reducing lead-time, reducing cost, and improving quality of castings critical to DOD weapon systems. The increase in funding will help develop new technology for casting suppliers, including inspection, materials, modeling, and design.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Procurement Readiness Optimization-Advanced Casting Technology Accomplishments/Plans	2.082	0.000	0.000
FY 2015 Accomplishments: We nominated the Welding High Strength Cast Steel project for the DOD ManTech Achievement Award and it made the top 5 projects, This project actually won the DoD ManTech Achievement Award at the Defense Manufacturing Conference 2015 in Dec 2015. Made good progress on the Lube-Free for Die Castings project, down selecting coating, with some in plant trails to be run in 2nd-3rd quarter FY16.			
FY 2016 Plans: In the Lube-Free for Die Castings project tests using the selected coating will be performed during in-plant trails to be run in 2nd-3rd quarter FY16. Under another project, we also plan to complete the 2nd casting trial of engine airfoils cast using ceramic casting cores, which were Additively Manufactured using Ceramic Stereolithography (CSL). Planning to award a new contract for two projects not funded in previous years. Funding and efforts of the PRO-ACT program were transferred into the Material Availability Strategic Focus Area.			
FY 2017 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 3 / *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Funding and efforts of the PRO-ACT program were transferred into the Improving Industrial Base Manufacturing Processes Strategic Focus Area.			
Accomplishments/Planned Programs Subtotals	2.082	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Competitive Broad Agency Announcement (BAA) was drafted last FY. The current contracts reached end of base period of performance on September 30, 2014 but option extensions for two years were exercised, so base contracts will expire during FY16. Period of performance on current contracts end in FY 17. New BAA is expected to be released in FY16 with contract(s) competitively awarded by 1st QTR FY17.

E. Performance Metrics

Reductions in costs and lead-times, as well as improvements in manufacturing materials, processes and business practices in foundries that produce DOD weapon systems parts.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 3 / *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Casting Manufacturing Technology Process Development	C/CPFF	Advanced Technology International : SC	9.435	1.932	Dec 2014	-		-		-		-	-	-	-
Casting Manufacturing Technology Process Development	C/CPFF	Honeywell International Inc : AZ	0.892	0.050	Aug 2015	0.000		-		-		-	-	-	-
Casting Manufacturing Technology Process Development	C/CPFF	Global Support Services LLC : AK	0.000	0.100	Feb 2015	-		-		-		-	-	-	-
		Subtotal	10.327	2.082		0.000		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	10.327	2.082		0.000		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 3 / *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*

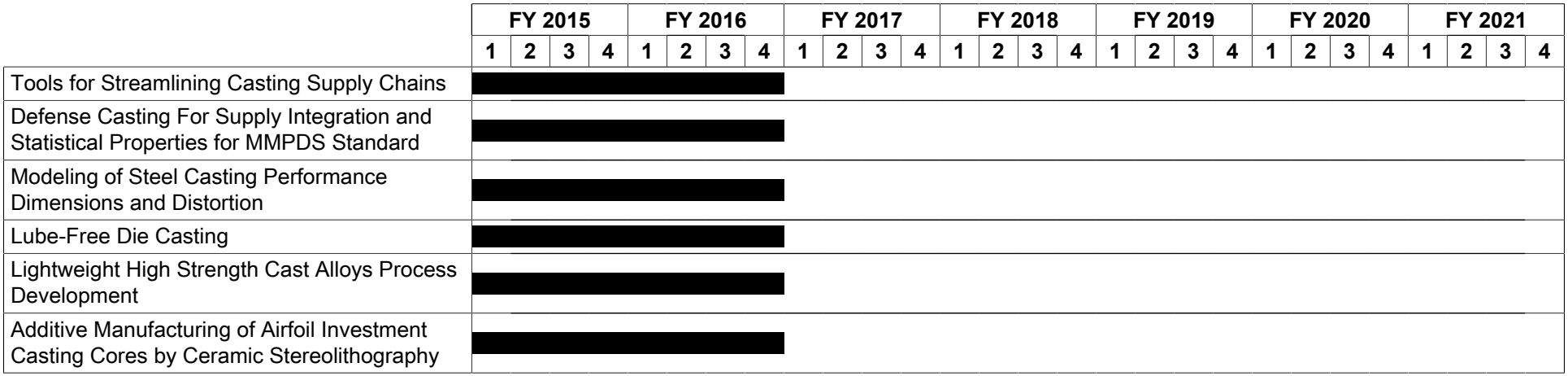


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 3 / *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Tools for Streamlining Casting Supply Chains	1	2015	4	2016
Defense Casting For Supply Integration and Statistical Properties for MMPDS Standard	1	2015	4	2016
Modeling of Steel Casting Performance Dimensions and Distortion	1	2015	4	2016
Lube-Free Die Casting	1	2015	4	2016
Lightweight High Strength Cast Alloys Process Development	1	2015	4	2016
Additive Manufacturing of Airfoil Investment Casting Cores by Ceramic Stereolithography	1	2015	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 4 / *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
4: *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*	4.623	1.004	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

The Forgings consortium objective is to develop new materials and technologies for the forging industry to help DLA improve the supply of parts that contain forgings. 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 ~2% of National Stock Numbered Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered up to 10% 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 the technologies will be tested and implemented in conjunction with the industry associations. These advancements will improve the forging supply chains for the DOD and the DLA to better support the warfighter. This is achieved through investments in projects aimed at reducing lead-time, reducing cost, and improving quality of forgings critical to DOD weapon systems. The increase in funding will help develop new technology for forging suppliers, including new methods for making forge dies (typically the longest lead time and most expensive item) and for simulation of metal flow inside the forge die (to eliminate trial and error development of the die).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Procurement Readiness Optimization-Forging Advanced System Technology Accomplishments/Plans	1.004	0.000	0.000
FY 2015 Accomplishments: Five new projects were awarded in FY15. Four were awarded in March 2015: 1) Innovations in Repair of Forging Dies; 2) Large-Scale Forging Die Fabrication in Support of the DLA; 3) Simulation in the Development & Optimization of Advanced Forging Processes; and 4) Forged Fiber Reinforced Alum. Engine Components. Another project, Cast Forging Preforms, was awarded under the Improved Forging Acquisition Manufacture and Materials (IFAMM) contract.			
FY 2016 Plans: Funding and efforts of the PRO-FAST program were transferred into the Material Availability Strategic Focus Area. Planned accomplishments for FY16 include completion of the Investigation phase and moving the new projects into the Development Phase. All projects are being managed under a Stage Gate Process, allowing for termination or alteration if progress is not satisfactory.			
FY 2017 Plans: Funding and efforts of the PRO-FAST program were transferred into the Improving Industrial Base Manufacturing Processes			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 4 / *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Strategic Focus Area.			
Accomplishments/Planned Programs Subtotals	1.004	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

A Competitive Broad Agency Announcement (BAA) was used to competitively award all contracts used to execute these forging projects.

E. Performance Metrics

Reduction in lead-time and improvements in manufacturing processes in forging shops that produce DOD weapon systems parts.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 4 / *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Forging Sustainment Manufacturing Technology Process Development	C/CPFF	Advanced Technologies Institute : SC	4.623	0.800		0.000		-		-		-	-	-	-
Forging Sustainment Manufacturing Technology Process Development	MIPR	Alion Science and Technology Corporation : IL	-	0.204	Feb 2015	-		-		-		-	-	-	-
		Subtotal	4.623	1.004		0.000		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	4.623	1.004		0.000		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 4 / *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*

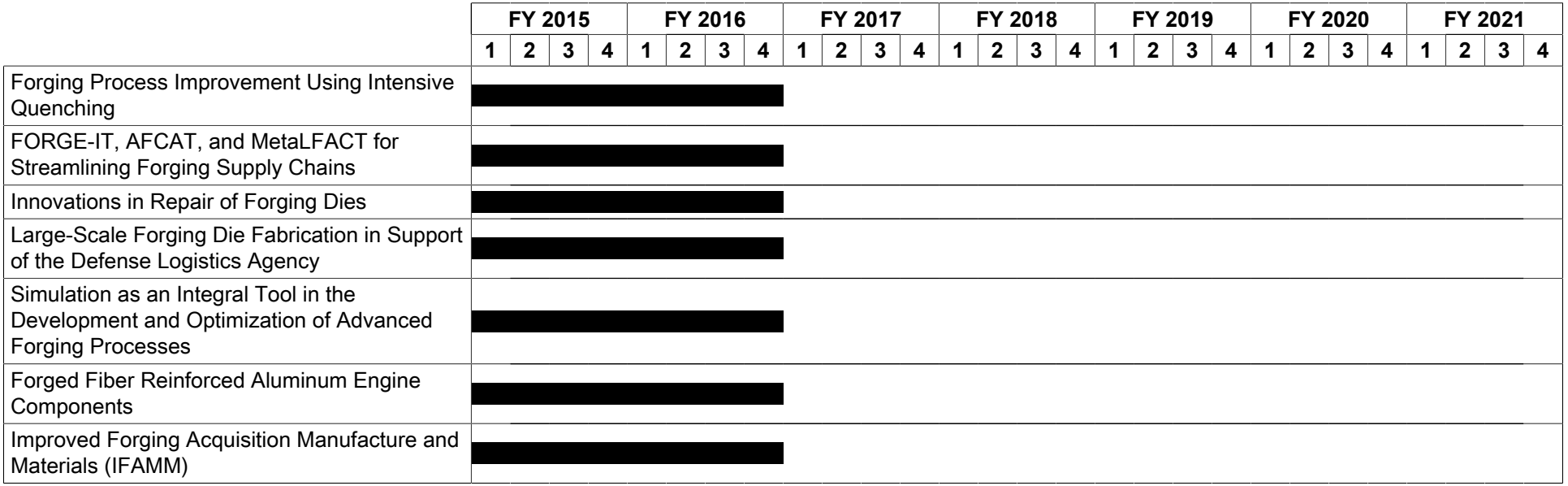


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 4 / *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Forging Process Improvement Using Intensive Quenching	1	2015	4	2016
FORGE-IT, AFCAT, and MetaLFACT for Streamlining Forging Supply Chains	1	2015	4	2016
Innovations in Repair of Forging Dies	1	2015	4	2016
Large-Scale Forging Die Fabrication in Support of the Defense Logistics Agency	1	2015	4	2016
Simulation as an Integral Tool in the Development and Optimization of Advanced Forging Processes	1	2015	4	2016
Forged Fiber Reinforced Aluminum Engine Components	1	2015	4	2016
Improved Forging Acquisition Manufacture and Materials (IFAMM)	1	2015	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 5 / *Material Acquisition Electronics (MAE)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
5: *Material Acquisition Electronics (MAE)*	46.844	11.552	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

Funding and technical work for the Material Acquisition Electronics (MAE) program has been reallocated to the High Quality Sources Strategic Focus Area. Develop a capability to emulate most obsolete digital integrated circuits (ICs) in the Federal catalog using a single, flexible manufacturing line. DoD has estimated $2.9 billion is spent every five years redesigning circuit card assemblies. Many of these circuit card redesigns are performed to mitigate IC obsolescence. Commercial ICs have short Product Life Cycles (often only 18 months). IC Manufacturers subsequently move on to later generations of ICs, leaving little to no sources for their previous IC products. DoD maintains weapons systems much longer than IC lifecycles, resulting in an obsolescence problem. In order to avoid costs and potential readiness issues associated with buying/carrying excess inventories acquired before commercial availability ceases, or redesigning the next higher assembly to mitigate the obsolete IC, DLA (as the manager of 88% of the IC Federal Stock Class) must have the capability to manufacture needed IC devices.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Material Acquisition Electronics Accomplishments/Plans	11.552	0.000	0.000
FY 2015 Accomplishments: MAE has transitioned flexible NMOS/PMOS Digital Microcircuit Emulation capability into full-scale production increasing DLA's ability to re-establish sourcing of non-procurable microcircuit NSNs. The first NSNs produced, support 42 weapon systems, including B-52, A-10, Arleigh Burke DDG, F-16, AWACS, F/A-18, & E/A-18; additional NSNs will be produced across the FYDP and beyond. MAE also made significant progress in the development of higher density Read-Only and Random-Access Memory, Advanced Emitter-Coupled Logic and Closed-Cell CMOS capabilities which, when transitioned into full-scale production, will further increase DLA's ability to re-establish sourcing of non-procurable microcircuit NSNs. The newly transitioned emulation capabilities will address several discontinued device families and will increase the potential emulation production envelope by several hundred NSNs. MAE also initiated new implementations including development of an Advanced Schottky TTL Capability. It will continue prototyping 350 nanometer emulation circuitry, bringing emulation capability that re-establishes sources for additional NSNs			
FY 2016 Plans: Funding and efforts associated with Material Acquisition Electronics has been moved to the High Quality Sources SFA for FY 16.			
FY 2017 Plans: Funding and efforts associated with Material Acquisition Electronics has been moved to the High Quality Sources SFA for FY 16.			
Accomplishments/Planned Programs Subtotals	11.552	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 5 / *Material Acquisition Electronics (MAE)*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Competitively awarded R&D contract.

E. Performance Metrics

Transition of one technology implementation (base array) to low-rate initial production or full-scale production. Each technology implementation increases the breadth of microcircuit part types which can be returned to a procurable status; improving readiness and avoiding the need to redesign at the next-higher level. Potential benefit to hundreds of weapon systems.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 5 / *Material Acquisition Electronics (MAE)*	

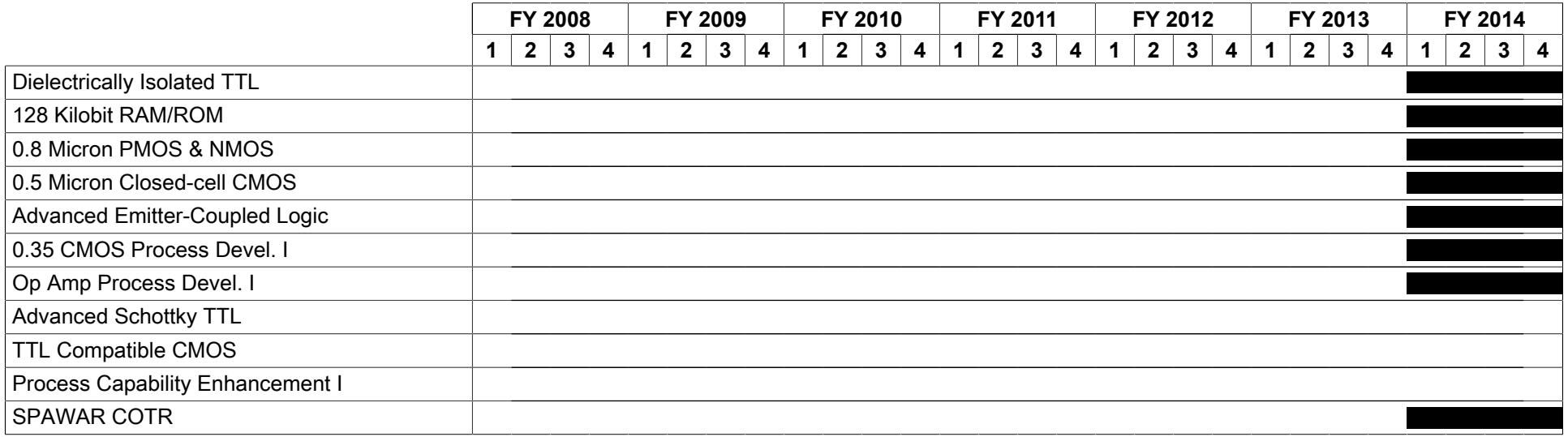
Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Digital Electronic Device Manufacturing Technology Process Development	C/CPFF	SRI International : CA	41.294	11.152	Nov 2014	0.000		-		-		-	-	-	-
Digital Electronic Device Manufacturing Technology Process Development SETA	MIPR	SPAWARSYSCEN San Diego : CA	5.550	0.400	Aug 2015	-		-		-		-	-	-	-
		Subtotal	46.844	11.552		0.000		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	46.844	11.552		0.000		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 5 / *Material Acquisition Electronics (MAE)*



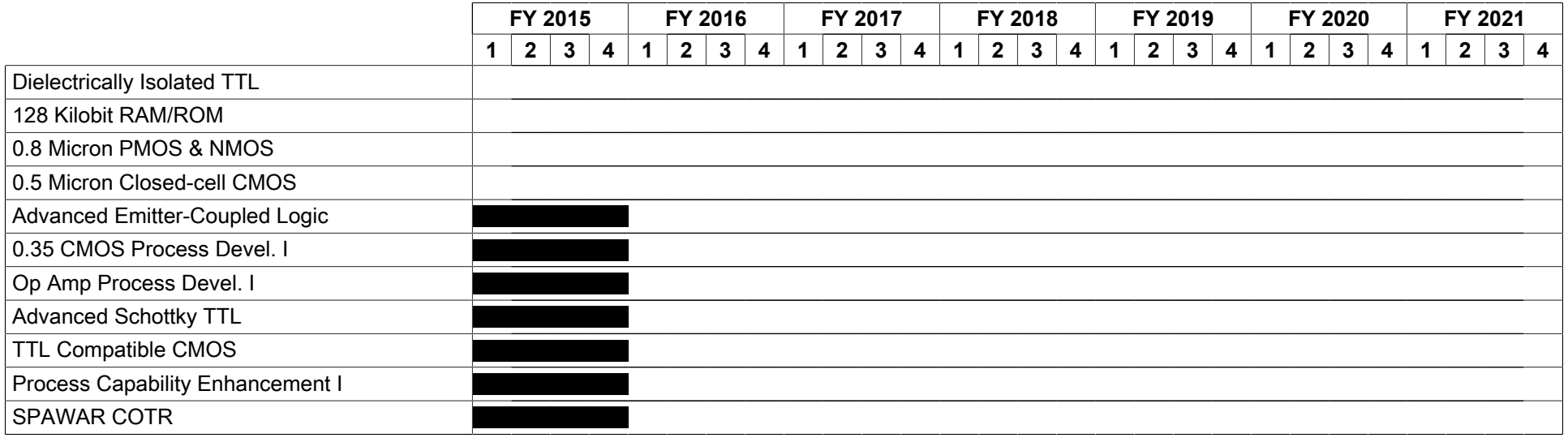


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 5 / *Material Acquisition Electronics (MAE)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Dielectrically Isolated TTL	1	2014	4	2014
128 Kilobit RAM/ROM	1	2014	4	2014
0.8 Micron PMOS & NMOS	1	2014	4	2014
0.5 Micron Closed-cell CMOS	1	2014	4	2014
Advanced Emitter-Coupled Logic	1	2014	4	2015
0.35 CMOS Process Devel. I	1	2014	4	2015
Op Amp Process Devel. I	1	2014	4	2015
Advanced Schottky TTL	1	2015	4	2015
TTL Compatible CMOS	1	2015	4	2015
Process Capability Enhancement I	1	2015	4	2015
SPAWAR COTR	1	2014	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 6 / *Battery Network (BATTNET)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
6: *Battery Network (BATTNET)*	6.343	1.969	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

BATTNET is focused on improving the supply and reducing the cost of procured batteries used in fielded weapon systems such as communication radios and armored vehicles. Batteries exhibit dynamic challenges for military logistics. BATTNET is a community of practice of battery supply chain members, engineering support activities, researchers, and users. BATTNET conducts R&D to address sustainment gaps and bridge technical solutions into higher MRLs for specific groups of batteries. For FY2014, DLA received 139,163 orders for 2.85 million batteries at $183M net value - compared to FY13 $176M and FY12 $216M.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Battery Network (BATTNET)	1.969	0.000	-
FY 2015 Accomplishments: R&D completed initial manufacturing technology short term projects supporting lithium-ion batteries for US Army LRAS3 Ground Sensor and US Navy MH-60 helicopter, and for lithium-ion zero-volt discharge capable cells. R&D initiated joint work with US Army AMCOM to replace obsolete nickel cadmium batteries on TOW2 system, initiated additional manufacturing technology cost/ risk reduction work on lithium-ion battery for MH-60 helicopter, and continued work on new non-solvent equipment for coating lithium-ion cathodes and anodes. All projects require executive approval with business case and transition plan. The program is also managing several SBIR projects expected to transition into BATTNET activities.			
FY 2016 Plans: Funding and efforts of the BATTNET program were transferred into the Improving Industrial Base Manufacturing Processes (formerly Material Availability) Strategic Focus Area.			
Accomplishments/Planned Programs Subtotals	1.969	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The BATTNET R&D partners were established by contract September 2009 through a competitive Broad Area Announcement (BAA) allowing for maximum competition. Partner Contracts were based upon proposals that demonstrated knowledge, experience, and expertise in the following areas of interest: Automation, Battery Maintenance, Competition & Contracting Requirements, Diminishing Manufacturing & Supply, Lithium Battery Safety, Reducing Acquisition Costs, Shelf Life, Supply Chain Logistics, Surge/Sustainment, and Technology Transition/Insertion. The BATTNET, which includes a Government Steering Group (GSG) of power source

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 6 / *Battery Network (BATTNET)*

technical experts from the military services R&D groups, is informed of general R&D requirements for supply chain improvement. The partners develop among themselves related R&D projects, which are then formally evaluated by the GSG. Selected projects are then chartered within DLA and planned for contract STP awards when funds are available. Additional projects were awarded to BATTNET partners from FY12 Industrial Base Innovation Fund (IBIF).

E. Performance Metrics

At least 30% of the completed projects will transition. The program achieved production readiness of lithium batteries that have more than two-times the energy capacity, three-times the shelf-life, and one-third of the weight compared to the batteries they replace.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 6 / *Battery Network (BATTNET)*	

Support ($ in Millions)

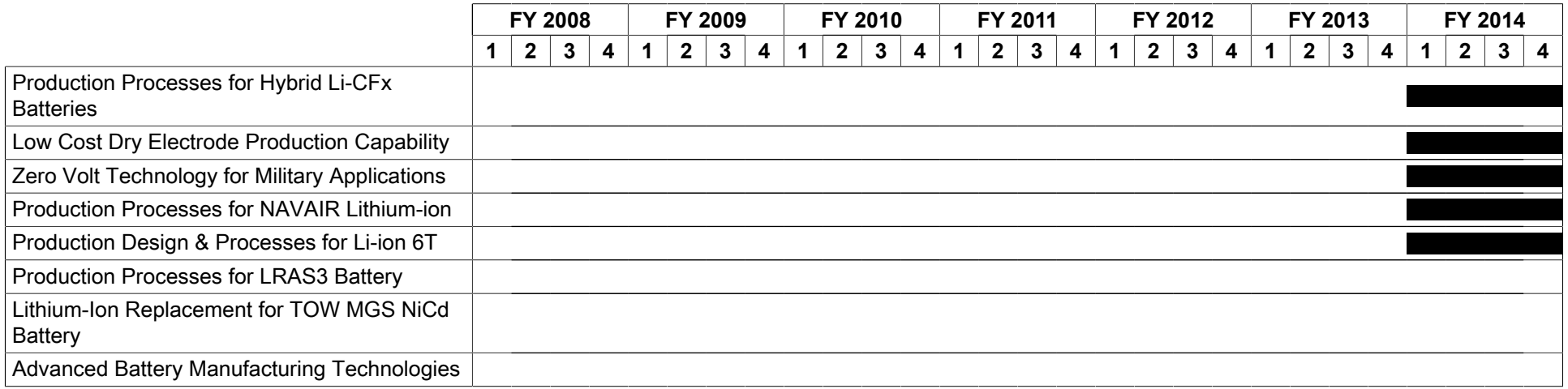
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Alion Science and Technology Corporation : IL	1.340	0.596	Jul 2015	-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/FFP	Eskra Technical Products Inc : WI	2.154	0.372	Dec 2015	-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	EaglePicher Technologies LLC : MO	0.438	0.015	Nov 2015	-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Quallion, LLC : CA	0.788	0.662	Nov 2015	-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Saft America Inc : MD	0.108	0.135	Mar 2015	-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Redblack Communications Inc : MD	0.440	-		-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Logistics Management Institute : VA	0.258	-		-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Navitas Systems : MI	0.308	-		-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	US Army : MI	0.509	0.010	Feb 2015	-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	US Navy : MD	0.000	0.021	Feb 2015	-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Rutgers, The State University of New Jersey : NJ	-	0.158	Dec 2015	-		-		-		-	-	-	-
		Subtotal	6.343	1.969		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 6 / *Battery Network (BATTNET)*	

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	6.343	1.969		0.000		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 6 / *Battery Network (BATTNET)*



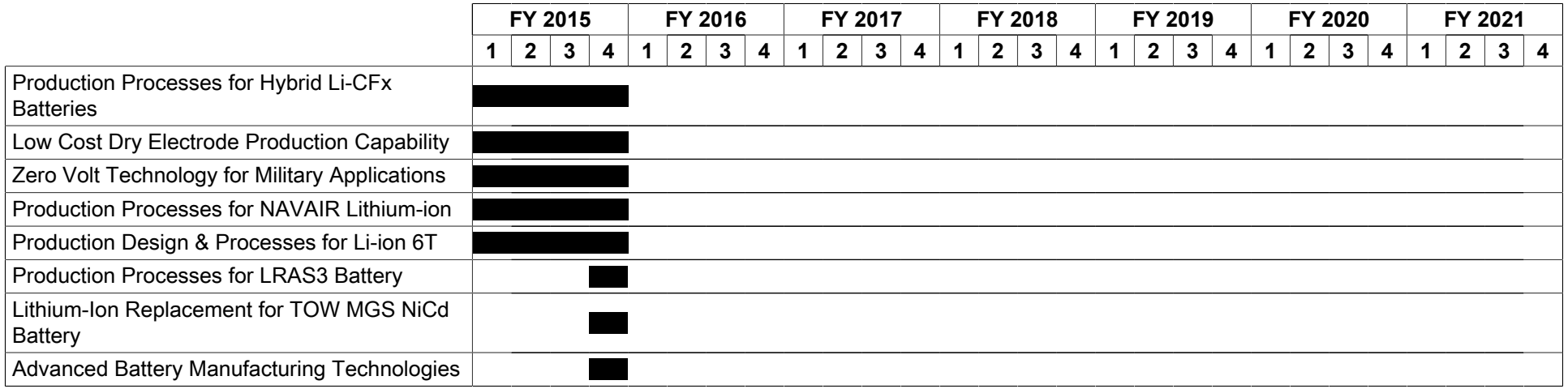


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 6 / *Battery Network (BATTNET)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Production Processes for Hybrid Li-CFx Batteries	1	2014	4	2015
Low Cost Dry Electrode Production Capability	1	2014	4	2015
Zero Volt Technology for Military Applications	1	2014	4	2015
Production Processes for NAVAIR Lithium-ion	1	2014	4	2015
Production Design & Processes for Li-ion 6T	1	2014	4	2015
Production Processes for LRAS3 Battery	4	2015	4	2015
Lithium-Ion Replacement for TOW MGS NiCd Battery	4	2015	4	2015
Advanced Battery Manufacturing Technologies	4	2015	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
7: *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*	0.000	0.000	4.875	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 Material Availability (MA) Strategic Focus Area (SFA) are R&D efforts undertaken with DLA's industrial base to reduce material costs, reduce the length and variability of Production Lead-Times, assure the DLA managed products meet 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 strategic focus area includes within its scope the former Combat Rations Program, the Battery Program, the Castings and the Forgings programs.

This SFA is comprised of five roadmaps for Batteries, Subsistence Network, Castings, Forgings, and Additive Manufacturing.

The Battery network 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. The network conducts R&D initiatives to address sustainment gaps and bridge technical solutions into higher MRLs for specific groups of batteries. For FY2014, DLA received 139,163 orders for 2.85 million batteries at $183M net value - compared to FY13 $176M and FY12 $216M. The Battery network 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 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 Subsistence Supply Chain consists of military subsistence, which includes combat rations, field feeding equipment, garrison feeding and market fresh products. The Subsistence Network (SUBNET) program is a manufacturing technology program and is the successor to the Combat Rations R&D program. SUBNET's community of practice will 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. The desired outcomes of the current short-term projects Microwave Assisted Thermal Sterilization (MATS), MRE Alternate Chemical Laminate, Optimize Combat Ration Inspection Costs, and Combat Rations Shelf Life Temperature Monitoring Project include testing of low risk, high-impact technology and process improvements that will improve the quality of individual and group combat rations, reduce cost, and provide efficiencies, then transitioning these improvements to industrial base suppliers and government suppliers.

The Castings consortium objective is to develop new materials and technologies for the metalcasting industry to help DLA improve the supply of parts that contain castings. 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 ~2% of National Stock Numbered Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered up to 10%

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

are castings. 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 foundry industry, where the technologies will be tested and implemented in conjunction with the industry associations. These advancements will improve the metalcasting supply chains for the DOD and the DLA to better support the warfighter. This is achieved through investments in projects aimed at reducing lead-time, reducing cost, and improving quality of castings critical to DOD weapon systems.

The Forgings consortium objective is to develop new materials and technologies for the forging industry to help DLA improve the supply of parts that contain forgings. 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 ~2% of National Stock Numbered Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered up to 10% 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 the technologies will be tested and implemented in conjunction with the industry associations. These advancements will improve the forging supply chains for the DOD and the DLA to better support the warfighter. This is achieved through investments in projects aimed at reducing lead-time, reducing cost, and improving quality of forgings critical to DOD weapon systems.

The Additive Manufacturing (AM) objective is to establish AM as an effective alternative to conventional manufacturing and document the process for AM benefits. DLA needs to exploit AM technology as a lead-time and inventory reduction enabler.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Improving Industrial Base Manufacturing Processes (formally Material Availability)	-	4.875	0.000
FY 2016 Plans: The Subsistence Network (SUBNET) plans to identify and award new STPs through a Broad Agency Announcement (BAA) with an expected duration of 12-24 months and an average annual funding of $100K-$250K. The government plans to invest up to $18 million during Fiscal Years 2016-2021 for funding research in response to this BAA. Through the SUBNET STPs, research and development projects will be conducted and directed toward improving existing DLA processes and to improve manufacturing and delivery of combat rations and other subsistence products. Two of the STPs will be completed and transitioned in FY16. That is, the Microwave Assisted Thermal Sterilization (MATS) and the MRE Alternate Chemical Laminate Project. The Microwave Assisted Thermal Sterilization (MATS) goal is to reduce the cost of current combat ration entrees using MATS versus Retort, which is projected to be a 40% reduction in cost based on the energy savings per pouch of 50% MATS versus Retort. The cost reduction is projected to be higher when ration waste is considered as a result of poor reception of retorted ration entrees by the warfighters. For the project optimize combat rations inspection costs, the objective is to establish an inspection system that captures the cost of quality that includes inspection of incoming material, in-process and end item inspections. The baseline for inspection was established for two retort products and one assembled meal. Analytical testing protocols have been reassessed for two products leading to a 58% reduction in cost. The combat ration shelf life temperature monitoring through data loggers provided a method to monitor the temperature distribution in the warehouse where unitized group rations are stored. The project includes tasks to develop solution sets for an optimal method of determining the rate of the shelf life degradation of rations and contents and a method to convey information to the receiver of the product at time of shipment. A 9 F degree reduction in temperature was			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
achieved during the summer of 2015 as compared to 2014, leading to significant shelf life retention. The MRE Alternate Chemical Resistant Pouch Laminate will mitigate the risks in the material supply chain and establish reliable production for advanced pouch materials. Investments in these projects and future short-term projects will improve quality of individual and group combat rations, reduce costs, increase production, and provide efficiencies. The Castings consortium plan is to complete some existing projects towards the end of FY16 and into FY17. The new BAA will be released in FY16, with award(s) planned for 1st quarter FY17. Plan to complete new welding procedures and post-weld heat treatments to restore mechanical properties of the welded areas of Eglin Steel, a high strength steel, and hence its strength and integrity. The Forgings consortium plan is to continue working projects recently awarded in FY15. The Forging consortium will also pursue additional forging manufacturing advances from successful DLA SBIR projects selected in FY2014 using additional funds planned to begin in FY16. The Battery Network plan is to identify and award new Short Term Projects (STP) with an expected duration of 18-24 months and an average annual funding of $200K-$500K. Proposals are required to include a business case with specific metrics and transition plan for success. The Battery Network will also pursue additional battery manufacturing advances from successful DLA SBIR projects selected in FY2014. The Additive Manufacturing plan is for DLA to partner with the Military Services to use AM to produce parts. DLA and the Services will identify candidate parts, convert technical data to 3D format to facilitate AM, procure the parts, and document the process for AM benefits. The Services will review newly created technical data packages (TDP), test the parts, and qualify AM as an acceptable process to produce the parts. FY 16 – FY 20: Funding for Additive projects will be reallocated from other MA SFA thrusts and classified into the Additive Manufacturing Thrust. ***FY 2017 Plans:*** FY17 Fund Realignment from BA07 to BA03 PE 0603680S			
Accomplishments/Planned Programs Subtotals	-	4.875	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

The Battery Network plan is to establish contract partners through a competitive Broad Area Announcement (BAA) based upon proposals that demonstrated knowledge, experience, and expertise in the following areas of interest: Automation, Diminishing Manufacturing & Supply, Battery Safety, Reducing Acquisition Costs, Shelf Life, Supply Chain Logistics, Surge/Sustainment, and Technology Transition/Insertion. A Government Steering Group (GSG) of power source technical experts from the military services R&D groups will inform general R&D requirements for supply chain and technology improvement. The plan also includes awarding Phase 2 and 3 projects from DLA's Small Business Innovation Research (SBIR) in advanced battery manufacturing technology.

The Subsistence Network acquisition strategy is delivery orders against competitively awarded IDIQ R&D contracts via the forthcoming BAA. The current contracts will reach the end of their base period of performance by December 2016. A new BAA has been drafted and will be released in January 2016 with award of contracts in FY16 and FY17. A Joint Steering Group made up of government representatives from the Military Services, DLA, U.S. Department of Agriculture, U.S. Public Health Center, and the Natick Soldier Research, Development and Engineering Center will review ongoing projects, identify new areas for investment, assess proposed projects, examine procedures and processes, keep abreast of new technologies, and understand DLA and DoD subsistence needs and requirements.

The Castings involved a competitive Broad Agency Announcement (BAA). Evaluations were completed and two contracts were awarded competitively September 2011. The current contracts reached the end of their base period of performance on September 30, 2016. A new BAA has been drafted and will be released in FY16 with award of contracts(s) in FY17.

The Forgings involved a competitive Broad Agency Announcement (BAA). Evaluations were completed and a contract awarded September 2014.

The Additive Manufacturing plan will partner with the Military Services and use organic and commercial AM parts production capabilities.

E. Performance Metrics

The Battery Network plan is to report returns on investments and achievements to the Joint Defense Manufacturing Technology Panel (JDMTP) for evaluation.

The Subsistence Network plan is to execute reductions in cost for shipping, storage, supply chain process, inventory, waste and inspections, as well as reduced lead times for combat ration production, field feeding equipment, garrison feeding and "market fresh."

For example, SUBNET will provide the following technical achievements: 1) a microwave-assisted capability to sterilize group-sized entrees and components, packaged in Institutional Sized Pouches (ISP) and Polymeric Trays and 2) identify and produce at least one or more alternate sealant layers that can be used by the rations industry to pack high acidic food products and to ensure uninterrupted supply of MRE rations.

The Castings consortium plan is to report returns on investments and achievements to the Joint Defense Manufacturing Technology Panel (JDMTP) for evaluation.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

The Forgings consortium plan is to report returns on investments and achievements to the Joint Defense Manufacturing Technology Panel (JDMTP) for evaluation.

The Additive Manufacturing metric is the number of parts qualified for AM and the lead-time savings achieved to make small quantities of items.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Manufacturing Technology Development – Combat Rations	C/CPFF	Clemson University : SC	0.000	-		0.020	Jun 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Michigan State University : MI	0.000	-		0.020	Jun 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Rutgers State University of New Jersey Division of Grants & Contracts Accounting : NJ	0.000	-		0.400	May 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	SOPAKO Inc : SC	0.000	-		0.150	May 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	University of Illionois : IL	0.000	-		0.020	Jun 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	University of Tennessee : TN	0.000	-		0.150	May 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Washington State University : WA	0.000	-		0.301	May 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Cadillac Products Inc : MI	0.000	-		0.020	Jun 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Oregon Freeze Dry Inc : OR	0.000	-		0.020	Jun 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Research and Development Associates : TX	0.000	-		0.020	Jun 2016	-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Manufacturing Technology Development – Combat Rations	C/CPFF	The Wornick Company : AL	0.000	-		0.150	May 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Sterling Foods : TX	0.000	-		0.150	May 2016	-		-		-	-	-	-
Combat Rations - SETA	C/FP	Analytic Strategies LLC : VA	0.000	-		0.200	May 2016	-		-		-	-	-	-
Casting Manufacturing Technology Process Development	C/CPFF	Advanced Technology International : SC	0.000	-		2.015	Nov 2015	-		-		-	-	-	-
Casting Manufacturing Technology Process Development	C/CPFF	Global Support Services LLC : AK	-	-		0.111	Mar 2016	-		-		-	-	-	-
Casting Manufacturing Technology Process Development	C/CPFF	Honeywell International Inc : AZ	-	-		0.050	Feb 2016	-		-		-	-	-	-
Forging Sustainment Manufacturing Technology Process Development	C/CPFF	Advanced Technology International : SC	-	-		1.078	Mar 2016	-		-		-	-	-	-
		Subtotal	0.000	-		4.875		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		4.875		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

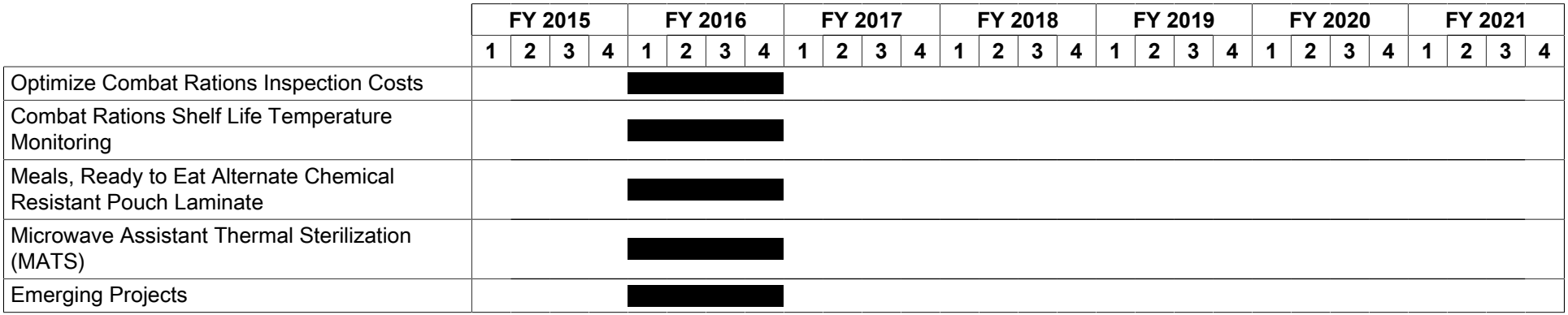


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Optimize Combat Rations Inspection Costs	1	2016	4	2016
Combat Rations Shelf Life Temperature Monitoring	1	2016	4	2016
Meals, Ready to Eat Alternate Chemical Resistant Pouch Laminate	1	2016	4	2016
Microwave Assistant Thermal Sterilization (MATS)	1	2016	4	2016
Emerging Projects	1	2016	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 8 / *Maintaining Viable Supply Sources (formerly High Quality Sources)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
8: *Maintaining Viable Supply Sources (formerly High Quality Sources)*	0.000	0.000	12.373	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 High Quality Sources SFA are 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 former Material Acquisition Electronics program.

The Material Acquisition Electronics roadmap has four major thrusts in Digital Microcircuits: Advanced Schottky TTL, TTL Compatible CMOS, 512 Kilobit RAM/ROM and Mega Gate ASIC. The Roadmap also includes a new major thrust area: Linear Microcircuits. 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 17 and beyond. Without the technologies planned on the MAE Roadmap, DLA will not be able to support DoD's requirements for high quality spare parts for critical electronic systems and subsystems.

The Strategic Materials roadmap is a new thrust for the DLA Mantech program. It is designed to ensure that critical strategic materials are available from domestic sources and that process innovations are in place to efficiently process or recover strategic materials. Domestic capabilities can enhance national security and potentially reduce Defense Stockpile requirements.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Maintaining Viable Supply Sources (formally High Quality Sources)	-	12.373	0.000
FY 2016 Plans: MAE will continue planning for the specific emulation technology implementations to support specific device family groups in consonance with Customer and Agency requirements. MAE will complete development and transition higher density Read-Only and Random-Access Memory, Advanced Emitter-Coupled Logic and Closed-Cell CMOS capabilities into full-scale production further increasing DLA's ability to re-establish sourcing of non-procurable microcircuit NSNs. The newly transitioned emulation capabilities will address several discontinued device families and will increase the potential emulation production envelope by several hundred NSNs. MAE will also initiate several new implementations including development of TTL-Compatible CMOS Emulation Capability. It will continue developing 350 nanometer Digital Emulation circuitry, bringing emulation capability that re-			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 8 / *Maintaining Viable Supply Sources (formerly High Quality Sources)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
establishes sources for additional NSNs. AME will also continue initial development and capability assessments to support a new major emulation thrust to support Linear Microcircuits beginning in FY2017. ***FY 2017 Plans:*** FY17 Fund Realignment from BA07 to BA03 PE 0603680S			
Accomplishments/Planned Programs Subtotals	-	12.373	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

MAE efforts are incremental funding on a competitive awarded 5 year contract.

Strategic Materials efforts will be competitively evaluated and awarded using Broad Agency Announcement (BAA) procedures.

E. Performance Metrics

Transition of one technology implementation (base array) to low-rate initial production or full-scale production. Each technology implementation increases the breadth of microcircuit part types which can be returned to a procurable status; improving readiness and avoiding the need to redesign at the next-higher level. Potential benefit to hundreds of weapon systems.

Strategic Materials: Develop roadmap and transition targeted manufacturing technologies.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 8 / *Maintaining Viable Supply Sources (formerly High Quality Sources)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Digital Electronic Device Manufacturing Technology Process Development	C/CPFF	SRI International : CA	0.000	-		11.973	Nov 2015	-		-		-	-	-	-
Digital Electronic Device Manufacturing Technology Process Development SETA	MIPR	SPAWAR : CA	0.000	0.000		0.400	Jun 2016	-		-		-	-	-	-
		Subtotal	0.000	0.000		12.373		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		12.373		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 8 / *Maintaining Viable Supply Sources (formerly High Quality Sources)*

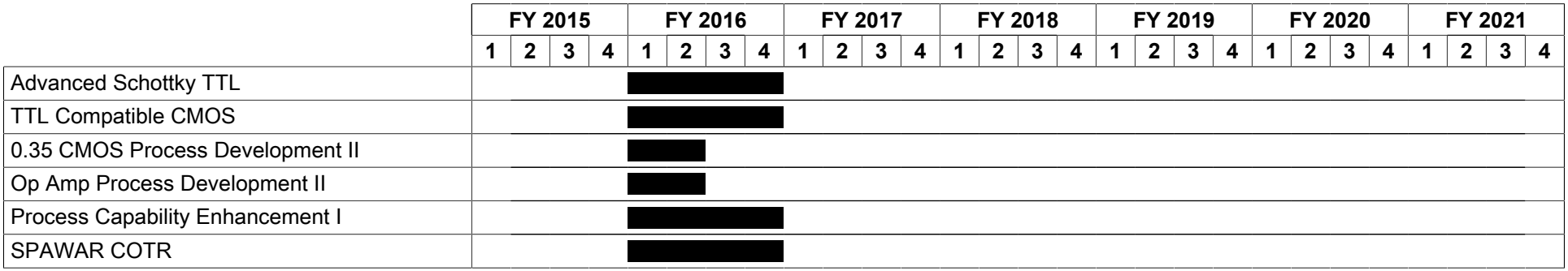


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 8 / *Maintaining Viable Supply Sources (formerly High Quality Sources)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Advanced Schottky TTL	1	2016	4	2016
TTL Compatible CMOS	1	2016	4	2016
0.35 CMOS Process Development II	1	2016	2	2016
Op Amp Process Development II	1	2016	2	2016
Process Capability Enhancement I	1	2016	4	2016
SPAWAR COTR	1	2016	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
9: *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*	0.000	0.000	5.357	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 Improving Technical and Logistics Information Strategic Focus Area (SFA) projects improve and facilitate the communication of technical and logistics information among industry, DLA's military customers and DLA. This SFA includes Military Unique Sustainment Technology (MUST) and the Defense Logistics Information Research (DLIR) (P.E. 0603712S) within its scope. The movement of the DLIR related work from P.E. 0603712S to the DOD ManTech Program aligns the funding to the critical interface between DLA and industry and away from internal DLA operations.

The MUST focus addresses GAO Report 12-707 recommendations that DOD to establish a "knowledge-based approach" to collaborate on define and communicate of military unique requirements. DLA has the responsibility to communicate and manage 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 reduce the lead-time between Individual Item and Equipment (IIE) development and sustainment from years to months. The Program focuses on technologies that will transform the military IIE supply chain from an "electronic paper" (i.e. PDF/MS Word) based, manual environment into a knowledge based automated environment. The resulting approach will be a neutral platform that will seamlessly communicate military unique technical requirements throughout the end to end supply chain.

The DLIR Model Based Enterprise effort will develop capabilities to systematically accept engineering and design data from the Military Services, validate and store item technical data in 3D models. There are two classes of data that must be addressed: newly designed parts for systems still in development and legacy parts for systems that are in sustainment. The problem with newly designed parts is capturing the complete and accurate designs. The legacy parts do not have digital engineering models which recreating the design in contemporary engineering systems.

The Technical and Logistical Data Interoperability will pioneer methods to capture data from military Services, Original Equipment Manufacturers (OEMs), and suppliers to form a seamless thread of interoperable and linked data models.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Improving Technical and Logistics Information (formally Industry and Customer Collaboration)	-	5.357	0.000
FY 2016 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
The MUST program will be beginning to stand up distributed pilots of the knowledge based approach. The project will develop and demonstrate a digital specification authoring tool, an automated piece-part design and 3D visualization tool, and technology to streamline the transition of requirements from the Services to DLA. MUST will show how DLA, its customers and suppliers can access, manage and share technical requirements in a common format. The DLIR MBE and data interoperability efforts will begin to extract info from product lifecycle management systems and link the data to specifications and standards via semantic data models and concepts. A new approach to distribution of specs and standards will be evaluated that enables industrial companies to have access to the precise specification requirement without having to extract it from the reference document. Testing the Model Based Enterprise (MBE) Conops developed in FY 15 with actual procurement using the standard supply system. Developing an automated process for strategic sourcing of cataloged products that are available from WWW sources. ***FY 2017 Plans:*** FY17 Fund Realignment from BA07 to BA03 PE 0603680S			
Accomplishments/Planned Programs Subtotals	-	5.357	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Delivery/Task Orders are awarded against a competitively awarded IDIQ contracts.

E. Performance Metrics

The metrics for ICC are error elimination in engineering and technical data, including omissions and uncertainties in specifications, streamlining vendor level of effort associated with completing procurements, and improved collaboration among the Services, DLA and the industrial base. The result will lead to reduced lead-time, inventory and to avoid the costs of defective material.

At least 30% of the completed projects will transition.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	AdvanTech STP : MD	0.000	0.000		0.482	Feb 2016	-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Logistics Management Institute : VA	0.000	0.000	Jan 2016	1.765		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	XSB STP : NY	0.000	0.000		0.481	May 2016	-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Clemson STP : SC	0.000	0.000		0.015	Jun 2016	-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Modulant : VA	-	-		0.039	Nov 2015	-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/FP	AR Services : VA	-	-		0.188	Feb 2016	-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	TBD : TBD	-	-		0.511	Sep 2016	-		-		-	-	-	-
Automatic Extraction of Product Lifecycle Management Data	C/CPFF	XSB Inc. : NY	-	-		1.876	May 2016	-		-		-	-	-	-
		Subtotal	0.000	0.000		5.357		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*	

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		5.357		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*

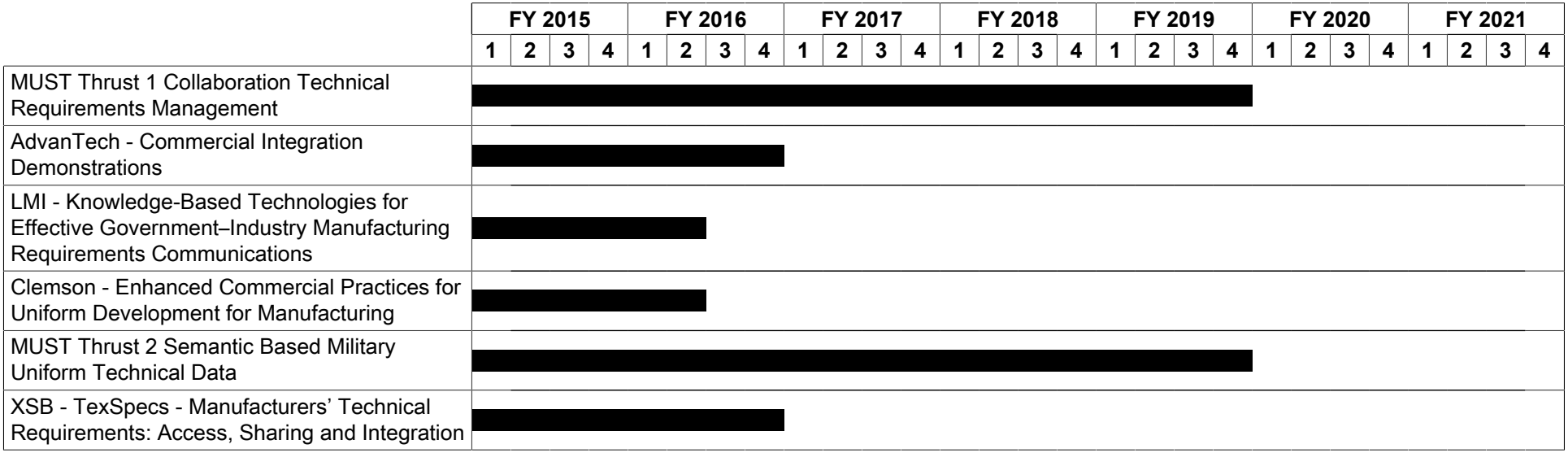


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
MUST Thrust 1 Collaboration Technical Requirements Management	1	2015	4	2019
AdvanTech - Commercial Integration Demonstrations	1	2015	4	2016
LMI - Knowledge-Based Technologies for Effective Government–Industry Manufacturing Requirements Communications	1	2015	2	2016
Clemson - Enhanced Commercial Practices for Uniform Development for Manufacturing	1	2015	2	2016
MUST Thrust 2 Semantic Based Military Uniform Technical Data	1	2015	4	2019
XSB - TexSpecs - Manufacturers' Technical Requirements: Access, Sharing and Integration	1	2015	4	2016