Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY R-1 ITE

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

BA 7: Operational Systems Development

#### R-1 ITEM NOMENCLATURE

PE 0708011S: Industrial Preparedness Manufacturing Technology (IP ManTech)

**DATE:** February 2012

COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	21.123	22.498	27.044	-	27.044	24.781	25.151	25.551	25.979	Continuing	Continuing
1: Combat Rations (CORANET)	1.868	1.731	2.047	-	2.047	2.089	2.122	2.157	2.194	Continuing	Continuing
2: Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Research Network)	4.091	3.778	4.488	-	4.488	4.578	4.656	4.733	4.813	Continuing	Continuing
3: Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)	2.522	2.316	2.728	-	2.728	2.784	2.830	2.877	2.926	Continuing	Continuing
4: Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)	1.188	1.102	1.308	-	1.308	1.335	1.358	1.380	1.403	Continuing	Continuing
5: Material Acquisition Electronics (MAE)	10.507	11.846	14.465	-	14.465	11.987	12.184	12.371	12.575	Continuing	Continuing
6: Battery Network (BATTNET)	0.947	1.725	2.008	-	2.008	2.008	2.001	2.033	2.068	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. Matures and validates emerging manufacturing technologies to support low-risk implementation in industry and Department of Defense (DoD) facilities, e.g. depots and shipyards. Addresses production issues early by providing timely solutions. Reduces risk and positively impacts system affordability by providing solutions to manufacturing problems before they occur.

DLA ManTech includes Combat Rations Network for Technology Implementation (CORANET), Customer Driven Uniform Manufacturing (CDUM), Procurement Readiness Optimization—Advanced Casting Technology (PRO-ACT), Procurement Readiness Optimization—Forging Advance System Technology (PRO-FAST), and Material Acquisition Electronics (MAE) and Battery Network (BATTNET). As well as, Other Congressional Add (OCA) programs that are Congressionally Directed efforts.

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Defense Logistics Agency

R-1 ITEM NOMENCLATURE

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

PE 0708011S: Industrial Preparedness Manufacturing Technology (IP ManTech)

**DATE:** February 2012

BA 7: Operational Systems Development

APPROPRIATION/BUDGET ACTIVITY

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	21.798	23.103	26.762	-	26.762
Current President's Budget	21.123	22.498	27.044	-	27.044
Total Adjustments	-0.675	-0.605	0.282	-	0.282
<ul> <li>Congressional General Reductions</li> </ul>	-	-0.062			
<ul> <li>Congressional Directed Reductions</li> </ul>	_	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
<ul> <li>Congressional Adds</li> </ul>	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
<ul> <li>Reprogrammings</li> </ul>	-	-			
SBIR/STTR Transfer	-	-0.543			
Departmental Fiscal Guidance	-0.645	-	0.282	-	0.282
Efficiency Initiatives SSC Reduction (OSD Withhold)	-0.030	-	-	-	-

# **Change Summary Explanation**

FY2012 FFRDC(f) Reduction: -\$0.062 million

FY2012 SBIR/STTR Transfer (Reduction): -\$0.543 million

FY2013 Departmental Fiscal Guidance: \$0.282 million

Exhibit R-2A, RDT&E Project Just	xhibit R-2A, RDT&E Project Justification: PB 2013 Defense Logistics Agency										
APPROPRIATION/BUDGET ACTIV		R-1 ITEM N	IOMENCLAT	ΓURE		PROJECT					
0400: Research, Development, Test & Evaluation, Defense-Wide PE 0708011S: Industrial Preparedness 1:								1: Combat Rations (CORANET)			
BA 7: Operational Systems Develop	ment			Manufactur	ing Technolo	gy (IP Man1	ech)				
COST (ft in Milliana)			FY 2013	FY 2013	FY 2013					Cost To	
COST (\$ in Millions)	FY 2011	FY 2012	Base	OCO Total FY 2014 FY 2015				FY 2016	FY 2017	Complete	Total Cost
1: Combat Rations (CORANET)	1.868	1.731	2.047	-	2.047	2.089	2.122	2.157	2.194	Continuing	Continuing

#### A. Mission Description and Budget Item Justification

Quantity of RDT&E Articles

In FY 2009, DLA Troop Support Subsistence sold \$4.75 billion in subsistence goods and services to the Department of Defense, making it the largest supply chain managed by DLA Troop Support. Sales in subsistence continue to grow, largely due to requirements for overseas contingency operations. The Combat Rations Program is focused on improving the manufacturing technologies related to the production and distribution of the combat rations that are at the forefront of these operations, including Meals Ready to Eat (MREs) as well as Unitized Group Rations (UGR). The objectives are increased readiness, improved quality, and better ration variety. CORANET research efforts also help control the cost of the combat rations. The CORANET program engages all elements of the supply chain including producers, military Services, Army Natick Soldier 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 and transition improved technologies for operational rations.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013
Title: Combat Rations Accomplishments/Plans	1.868	1.731	2.047
FY 2011 Accomplishments:  Explore continuous retort processing. Transition knurled seal technology for retort pouches. Develop a dimensional tear test for MREs.			
FY 2012 Plans: Develop new short term projects.			
FY 2013 Plans: Transition MRE Assembly Improvement (fit) working on assembly process modifications I, Test Methodology Directional Tear, Non-destructive Test for Measuring Tray Compressibility, Continuous Retort Processing.			
Develop new Short term projects for MRE Menu Bag Assembly Line Automation, Microwave Thermal Assisted Technology for Tray Pack Food Process Validation Projects for menu items for Institutional Packaging for MATS, Process Validation Projects for menu items for Individual Size Packages for MATS Part II of the Assembly Automation of UGR Packaging.			
Accomplishments/Planned Programs Subtotals	1.868	1.731	2.047

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

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2013 Defense Logi	istics Agency	<b>DATE</b> : February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
0400: Research, Development, Test & Evaluation, Defense-Wide	PE 0708011S: Industrial Preparedness	1: Combat Rations (CORANET)
BA 7: Operational Systems Development	Manufacturing Technology (IP ManTech)	
D. Acquisition Strategy		
N/A		
E. Performance Metrics	increased accordance of willtown combat notices	The manfarmance chicative is to translation FOO/
Performance metrics include improved quality, decreased cost and completed projects to the industrial base. Cost benefit analysis is		The performance objective is to transition 50% of
completed projects to the industrial base. Cost benefit analysis is	performed on the CORANET portions annually.	

PE 0708011S: Industrial Preparedness Manufacturing Technology (... Defense Logistics Agency

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY

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

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0708011S: Industrial Preparedness

Manufacturing Technology (IP ManTech)

PROJECT

1: Combat Rations (CORANET)

**DATE:** February 2012

Support (\$ in Millions)				FY 2	2012	FY 2 Ba	2013 se	FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
a. Manufacturing Process Support Costs	C/CPFF	Clemson University:Clemson, South Carolina	0.030	0.010	Dec 2011	0.010	Dec 2012	-		0.010	Continuing	Continuing	Continuing
b. Manufacturing Process Support Costs	C/CPFF	Dairy Management Incorporated:Des Plaines, Illinois	0.030	0.010	Dec 2011	-		-		-	Continuing	Continuing	Continuing
c. Manufacturing Process Support Costs	C/CPFF	Master Packaging:Tampa, Florida	0.030	0.010	Dec 2011	0.010	Dec 2012	-		0.010	Continuing	Continuing	Continuing
d. Manufacturing Process Support Costs	C/CPFF	Michigan State University:East Lansing, Michigan	0.462	0.010	Dec 2011	0.100	Dec 2012	-		0.100	Continuing	Continuing	Continuing
e. Manufacturing Process Support Costs	C/CPFF	Rutgers State University of New Jersey Division of Grants & Contract Accounting:New Brunswick, New Jersey	3.317	0.515	Dec 2011	0.500	Dec 2012	-		0.500	Continuing	Continuing	Continuing
f. Manufacturing Process Support Costs	C/CPFF	SOPAKO, Incorporated:Mullins, South Carolina	0.213	0.050	Dec 2011	0.050	Dec 2012	-		0.050	Continuing	Continuing	Continuing
g. Manufacturing Process Support Costs	C/CPFF	University of Illinois:Urbana, Illinois	0.095	0.050	Dec 2011	0.137	Dec 2012	-		0.137	Continuing	Continuing	Continuing
h. Manufacturing Process Support Costs	C/CPFF	University of Tennessee:Knoxville, Tennessee	1.084	0.360	Dec 2011	0.200	Dec 2012	-		0.200	Continuing	Continuing	Continuing
i. Manufacturing Process Support Costs	C/CPFF	Texas Engineering Experiment Station, Office of Sponsored Research, Texas A&M University:College Station, Texas	1.476	0.360	Dec 2011	0.400	Dec 2012	-		0.400	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY

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

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0708011S: Industrial Preparedness
Manufacturing Technology (IP ManTech)

PROJECT

1: Combat Rations (CORANET)

**DATE:** February 2012

Support (\$ in Millions)				FY 2	2012		2013 ise		2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
j. Manufacturing Process Support Costs	C/CPFF	Cadillac Products Incorporated:Troy, Michigan	0.075	0.010	Dec 2011	0.010	Dec 2012	-		0.010	Continuing	Continuing	Continuing
k. Manufacturing Process Support Costs	C/CPFF	Ohio State University Research Foundation:Columbus, Ohio	0.045	0.010	Dec 2011	-		-		-	Continuing	Continuing	Continuing
I. Manufacturing Process Support Costs	C/CPFF	Oregon Freeze Dry Incorporated:Albany, Oregon	0.045	0.010	Dec 2010	0.010	Dec 2012	-		0.010	Continuing	Continuing	Continuing
m. Manufacturing Process Support Costs	C/CPFF	Research and Development Associates:San Antonio, Texas	0.333	0.150	Dec 2011	0.010	Dec 2012	-		0.010	Continuing	Continuing	Continuing
n. Manufacturing Process Support Costs	C/CPFF	Sterling Foods, Limited:San Antonio, Texas	0.045	0.010	Dec 2011	0.010	Dec 2012	-		0.010	Continuing	Continuing	Continuing
o. Manufacturing Process Support Costs	C/CPFF	Virginia Polytechnic Institute and State University:Blacksburg, Virginia	0.317	0.043	Dec 2011	0.100	Dec 2012	-		0.100	Continuing	Continuing	Continuing
p. Manufacturing Process Support Costs	C/CPFF	Washington State Universtiy:Pullman, Washington	0.151	0.050	Dec 2011	0.300	Dec 2012	-		0.300	Continuing	Continuing	Continuing
q. Manufacturing Process Support Costs	C/CPFF	Logistics Management Institute:McLean, Virginia	0.179	0.053	Dec 2011	0.075	Dec 2012	-		0.075	Continuing	Continuing	Continuing
r. Manufacturing Process Support Costs	C/CPFF	Ameriqual, Inc.:Evansville, Indiana	0.030	0.010	Dec 2011	0.050	Dec 2012	-		0.050	Continuing	Continuing	
s. Manufacturing Process Support Costs	C/CPFF	Wornick:McAllen, Texas	0.090	0.010	Dec 2011	0.050	Dec 2012	-		0.050	Continuing	Continuing	
s. Manufacturing Process Support Costs	C/CPFF	Impact Associates:Knoxville, TN	0.025	-		0.025	Dec 2012	-		0.025	Continuing	Continuing	

PE 0708011S: Industrial Preparedness Manufacturing Technology (... Defense Logistics Agency

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Page 6 of 35

R-1 Line #245

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY R-1 IT

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

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0708011S: Industrial Preparedness
Manufacturing Technology (IP ManTech)

**PROJECT** 

1: Combat Rations (CORANET)

**DATE:** February 2012

Support (\$ in Millions)				FY 2	2012	FY 2 Ba			2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	8.072	1.731		2.047		-		2.047			
			Total Prior Years Cost	FY 2	2012	FY 2 Ba			2013 CO	FY 2013 Total	Cost To	Total Cost	Target Value of Contract
		Project Cost Totals	8.072	1.731		2.047		-		2.047			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY

0400: Research, Development, Test & Evaluation, Defense-Wide
BA 7: Operational Systems Development

PE 0708011S: Industrial Preparedness
Manufacturing Technology (IP ManTech)

DATE: February 2012

PROJECT

1: Combat Rations (CORANET)

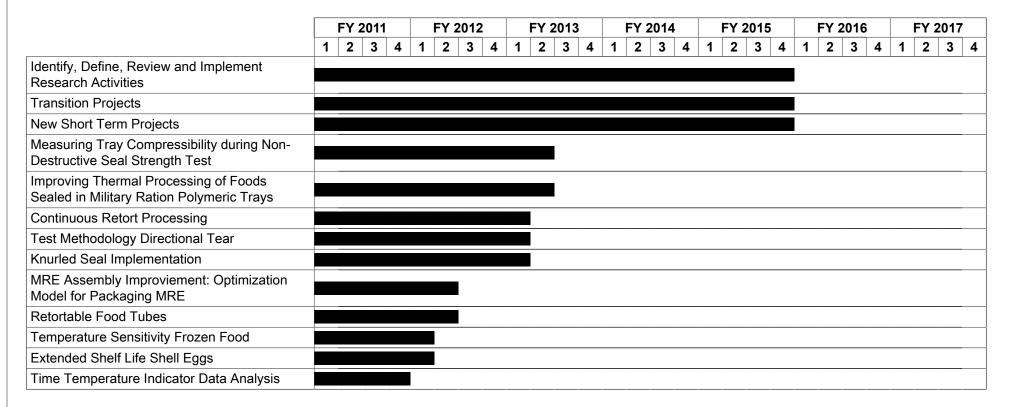


Exhibit R-4A, RDT&E Schedule Details: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY

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

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0708011S: Industrial Preparedness

Manufacturing Technology (IP ManTech)

**PROJECT** 

1: Combat Rations (CORANET)

**DATE:** February 2012

# Schedule Details

	Sta	art	End		
Events	Quarter	Year	Quarter	Year	
Identify, Define, Review and Implement Research Activities	1	2011	4	2015	
Transition Projects	1	2011	4	2015	
New Short Term Projects	1	2011	4	2015	
Measuring Tray Compressibility during Non-Destructive Seal Strength Test	1	2011	2	2013	
Improving Thermal Processing of Foods Sealed in Military Ration Polymeric Trays	1	2011	2	2013	
Continuous Retort Processing	1	2011	1	2013	
Test Methodology Directional Tear	1	2011	1	2013	
Knurled Seal Implementation	1	2011	1	2013	
MRE Assembly Improviement: Optimization Model for Packaging MRE	1	2011	2	2012	
Retortable Food Tubes	1	2011	2	2012	
Temperature Sensitivity Frozen Food	1	2011	1	2012	
Extended Shelf Life Shell Eggs	1	2011	1	2012	
Time Temperature Indicator Data Analysis	1	2011	4	2011	

Exhibit R-2A, RDT&E Project Just		DATE: Febr	ruary 2012									
APPROPRIATION/BUDGET ACTIV 0400: Research, Development, Test BA 7: Operational Systems Develop	& Evaluation	n, Defense-V	Vide	PE 0708011S: Industrial Preparedness Manufacturing Technology (IP ManTech)				PROJECT 2: Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Research Network)				
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost	
2: Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Research Network)	4.091	3.778	4.488	-	4.488	4.578	4.656	4.733	4.813	Continuing	Continuing	
Quantity of RDT&E Articles												

### A. Mission Description and Budget Item Justification

B Accomplishments/Planned Programs (\$ in Millions)

The Department of Defense, through the Defense Logistics Agency, purchased \$2.1 billion of clothing and textile items in FY 2010. The lead-time is up to 15 months and the current inventory acquisition value is over \$1.4 billion. The current focus of DLA military clothing research is Customer Driven Uniform Manufacturing (CDUM). CDUM explores the application of advanced technologies and process reengineering to the end-to-end management of clothing and individual equipment (CIE). CDUM is focusing on three thrust areas:

- 1. Supply Chain Process Reengineering and Advanced Technology for Military Clothing
- 2. Central Issue Facility (CIF) Process Reengineering and Shared Visibility
- 3. Manufacturing Methods for Product Performance and Quality Improvement

FY 2011 Accomplishments: RFID Item Level Technology for Component Manufacturers, Fabric Manufacturers and Individual Equipment FY 2012 Plans: RFID Item Level Technology Phase 2 and Transition; Product Life Cycle Management Technical Data Package. FY 2013 Plans: CDUM II will continue the TDP project to address gaps in product specifications by developing a flexible environment that netegrates multiple input and output formats to improve management, configuration control and communication between the Government and Defense Industrial Base manufacturers. Technical initiatives include developing a semantic data driven product lata environment. Data mining will be adapted to populate the data models. The primary benefit will be a significant reduction in TDP errors and improved data access by the multiple tiers of industrial base. In addition, the technology facilitates communication immong the Service Design Agencies, the Industrial Base and DLA Troop Support-Clothing and Textiles.  Accomplishments/Planned Programs Subtotals	FY 2011	F 1 2012	FY 2013
RFID Item Level Technology for Component Manufacturers, Fabric Manufacturers and Individual Equipment  FY 2012 Plans: RFID Item Level Technology Phase 2 and Transition; Product Life Cycle Management Technical Data Package.  FY 2013 Plans: CDUM II will continue the TDP project to address gaps in product specifications by developing a flexible environment that integrates multiple input and output formats to improve management, configuration control and communication between the Government and Defense Industrial Base manufacturers. Technical initiatives include developing a semantic data driven product lata environment. Data mining will be adapted to populate the data models. The primary benefit will be a significant reduction in TDP errors and improved data access by the multiple tiers of industrial base. In addition, the technology facilitates communication improved Design Agencies, the Industrial Base and DLA Troop Support-Clothing and Textiles.	4.091	3.778	4.488
RFID Item Level Technology Phase 2 and Transition; Product Life Cycle Management Technical Data Package.  TY 2013 Plans:  CDUM II will continue the TDP project to address gaps in product specifications by developing a flexible environment that integrates multiple input and output formats to improve management, configuration control and communication between the Government and Defense Industrial Base manufacturers. Technical initiatives include developing a semantic data driven product lata environment. Data mining will be adapted to populate the data models. The primary benefit will be a significant reduction in TDP errors and improved data access by the multiple tiers of industrial base. In addition, the technology facilitates communication among the Service Design Agencies, the Industrial Base and DLA Troop Support-Clothing and Textiles.			
CDUM II will continue the TDP project to address gaps in product specifications by developing a flexible environment that integrates multiple input and output formats to improve management, configuration control and communication between the Government and Defense Industrial Base manufacturers. Technical initiatives include developing a semantic data driven product lata environment. Data mining will be adapted to populate the data models. The primary benefit will be a significant reduction in TDP errors and improved data access by the multiple tiers of industrial base. In addition, the technology facilitates communication among the Service Design Agencies, the Industrial Base and DLA Troop Support-Clothing and Textiles.			
Accomplishments/Planned Programs Subtotals			
Accomplishments/Flaimed Frograms Subtotals	4.091	3.778	4.488

Exhibit R-2A, RDT&E Project Justification: PB 2013 Defense Logistic		DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
0400: Research, Development, Test & Evaluation, Defense-Wide	PE 0708011S: Industrial Preparedness	2: Custome	r Driven Uniform Manufacturing
BA 7: Operational Systems Development	Manufacturing Technology (IP ManTech)	(CDUM) (P.	reviously called Apparel Research
		Network)	

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

N/A

# D. Acquisition Strategy

N/A

# E. Performance Metrics

The CDUM program focus is on clothing and individual equipment (CIE). The cost benefit analysis for the RFID initiative has demonstrated improvements in inventory accuracy through reductions in adjustments.

Cost benefit analyses are performed on CDUM initiatives on an ongoing basis.

FY 2012

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY

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

BA 7: Operational Systems Development

**Support (\$ in Millions)** 

R-1 ITEM NOMENCLATURE

PE 0708011S: Industrial Preparedness
Manufacturing Technology (IP ManTech)

FY 2013

Base

**PROJECT** 

FY 2013

Total

FY 2013

oco

2: Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Research Network)

**DATE:** February 2012

								_					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
a. Manufacturing Process Support Costs	C/CPFF	Production Data Integration Technologies:Long Beach, California	8.400	0.751	Jan 2011	0.550	Jan 2013	-		0.550	Continuing	Continuing	Continuing
b. Manufacturing Process Support Costs	C/CPFF	AdvanTech:Annapolis, Maryland	6.567	1.737	Jan 2011	1.845	Jan 2013	-		1.845	Continuing	Continuing	Continuing
c. Manufacturing Process Support Costs	C/CPFF	Human Solutions NA, Incorporated:Dearborn, Michigan	0.750	-	Jan 2012	0.550	Jan 2013	-		0.550	Continuing	Continuing	Continuing
d. Manufacturing Process Support Costs	C/BPA	Logistics Management Institute:McLean, Virginia	3.920	1.290	Jan 2011	1.543	Aug 2012	-		1.543	Continuing	Continuing	Continuing
e. Manufacturing Process Support Costs	C/CPFF	Atlantic Diving Supply:Virginia Beach, VA	0.129	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	19.766	3.778		4.488		-		4.488			
			Total Prior Years Cost	FY 2	2012		2013 ise		2013 CO	FY 2013 Total	Cost To	Total Cost	Target Value of Contract
		Project Cost Totals	19.766	3.778		4.488		-		4.488			

Remarks

Supply Chain Process Reengineering and AIT	Supply Chain Process Reengineering and AIT for Military Clothing  Shared Army and DSCP Asset Visibility and CIF Process Reengineering  Manufacturing Methods for Product Performance and Quality Improvement  RFID Item Level Technology Phase 2 and Transition  Product Life Cycle Management Technical Data Package  Transition to CDUM II Prototype Implementations	hibit R-4, RDT&E Schedule Profile: PB 2013 D PROPRIATION/BUDGET ACTIVITY 00: Research, Development, Test & Evaluation, L 7: Operational Systems Development			cs Ag	R-1 ITEM NOMENCLATURE PE 0708011S: Industrial Preparedness Manufacturing Technology (IP ManTech)								PROJECT 2: Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Resea Network)													
Supply Chain Process Reengineering and AIT for Military Clothing  Shared Army and DSCP Asset Visibility and CIF Process Reengineering  Manufacturing Methods for Product Performance and Quality Improvement  RFID Item Level Technology Phase 2 and Transition  Product Life Cycle Management Technical Data Package  Transition to CDUM II Prototype Implementations	Supply Chain Process Reengineering and AIT for Military Clothing  Shared Army and DSCP Asset Visibility and CIF Process Reengineering  Manufacturing Methods for Product Performance and Quality Improvement  RFID Item Level Technology Phase 2 and Transition  Product Life Cycle Management Technical Data Package  Transition to CDUM II Prototype Implementations		FY	2011		F	Y 20	12		FY 2	013		FY	201	14		FY	201	5		FY	201	6		FY	201	7
Shared Army and DSCP Asset Visibility and CIF Process Reengineering  Manufacturing Methods for Product Performance and Quality Improvement  RFID Item Level Technology Phase 2 and Transition  Product Life Cycle Management Technical Data Package  Transition to CDUM II Prototype Implementations	for Military Clothing  Shared Army and DSCP Asset Visibility and CIF Process Reengineering  Manufacturing Methods for Product Performance and Quality Improvement  RFID Item Level Technology Phase 2 and Transition  Product Life Cycle Management Technical Data Package  Transition to CDUM II Prototype Implementations		1 2	3 4	4 1	:	2 :	3 4	1	2	3 4	1 1	1 2	3	3 4	1	2	3	4	1	2	2 3	4	1	2	3	4
CIF Process Reengineering  Manufacturing Methods for Product Performance and Quality Improvement  RFID Item Level Technology Phase 2 and Transition  Product Life Cycle Management Technical Data Package  Transition to CDUM II Prototype Implementations	CIF Process Reengineering  Manufacturing Methods for Product Performance and Quality Improvement  RFID Item Level Technology Phase 2 and Transition  Product Life Cycle Management Technical Data Package  Transition to CDUM II Prototype Implementations				·			·			·						·		·		·		·		·	·	
Performance and Quality Improvement  RFID Item Level Technology Phase 2 and Transition  Product Life Cycle Management Technical Data Package  Transition to CDUM II Prototype Implementations	Performance and Quality Improvement  RFID Item Level Technology Phase 2 and Transition  Product Life Cycle Management Technical Data Package  Transition to CDUM II Prototype Implementations																										
Transition  Product Life Cycle Management Technical Data Package  Transition to CDUM II Prototype Implementations	Transition  Product Life Cycle Management Technical Data Package  Transition to CDUM II Prototype Implementations																										
Data Package  Transition to CDUM II Prototype Implementations	Data Package  Transition to CDUM II Prototype Implementations																										
Implementations	Implementations																										
CDUM II New Initiatives	CDUM II New Initiatives																										
		CDUM II New Initiatives																									

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY

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

BA 7: Operational Systems Development

### R-1 ITEM NOMENCLATURE

PE 0708011S: Industrial Preparedness
Manufacturing Technology (IP ManTech)

#### **PROJECT**

2: Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Research Network)

**DATE:** February 2012

### Schedule Details

	Sta	art	Er	nd
Events	Quarter	Year	Quarter	Year
Supply Chain Process Reengineering and AIT for Military Clothing	1	2011	4	2014
Shared Army and DSCP Asset Visibility and CIF Process Reengineering	1	2011	4	2014
Manufacturing Methods for Product Performance and Quality Improvement	1	2011	4	2014
RFID Item Level Technology Phase 2 and Transition	4	2012	4	2014
Product Life Cycle Management Technical Data Package	2	2012	4	2014
Transition to CDUM II Prototype Implementations	4	2012	4	2015
CDUM II New Initiatives	4	2013	4	2015

Exhibit R-2A, RDT&E Project Jus	tification: PE	3 2013 Defer	nse Logistics	s Agency					DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY  0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development  R-1 ITEM NOMENCLATURE PE 0708011S: Industrial Preparedness Manufacturing Technology (IP ManTech)									nent Readine System Tech			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost	
3: Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)	2.522	2.316	2.728	-	2.728	2.784	2.830	2.877	2.926	Continuing	Continuing	
Quantity of RDT&E Articles												

### A. Mission Description and Budget Item Justification

Weapon system spare parts which use castings are responsible for a disproportionate share of backorders. Cast parts are 2% of National Stock Numbered parts but represent 4% of all backorders, and when only the oldest backorders are considered, up to 10% of them are castings. This program develops innovative technology and processes to improve the procurement, manufacture, and design of weapon system spare parts which use castings. The Procurement Readiness Optimization-Advanced Casting Technology (PRO-ACT) program takes a systems view and considers not only the Defense Logistics Agency (DLA) perspective but also the Military Service Engineering Support Activities (ESA) which DLA works with to solve technical issues, as well as the industrial supply base. The program has three components: Rapid Acquisition, Quality, and Cost Effectiveness.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013
Title: Procurement Readiness Optimization-Advanced Casting Technology Accomplishments/Plans	2.522	2.316	2.728
FY 2011 Accomplishments:  Awarded new base Task Order contract. Completed digital radiography standards for investment steel castings. Developed high strength cast steels that can be substituted for titanium casting with no weight penalty with substantial cost savings. Developed affordable software for smaller diecasters to optimize selection and design of molds. Developed and statistically validated the mechanical properties of the aluminum alloy E357 for inclusion into the Metallic Materials Properties and Data Standardization (MMPDS) Handbook.			
FY 2012 Plans: Awaiting award of new casting task order contracts for new projects. Award is anticipated 2nd quarter FY11.			
FY 2013 Plans:  Continue development new projects under the three major R&D initiatives for castings: 1) improved castings inspection methods such as Digital Radiography for magnesium & copper based castings; 2) improved casting materials & processes such as rapid tooling & prototyping using on demand melting and lightweight high strength cast alloys process; additive manufacturing of airfoil investment casting cores by ceramic stereolithography; and 3) process modeling for lube-free die casting, steel casting performance and refinement of cast part performance in the presence of discontinuities.			
Accomplishments/Planned Programs Subtotals	2.522	2.316	2.728

Exhibit R-2A, RDT&E Project Justification: PB 2013 Defense Logistic	s Agency		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
0400: Research, Development, Test & Evaluation, Defense-Wide	PE 0708011S: Industrial Preparedness	3: Procuren	nent Readiness Optimization-
BA 7: Operational Systems Development	Manufacturing Technology (IP ManTech)	Advanced S	System Technology (PRO-ACT)

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

N/A

# D. Acquisition Strategy

Awarded two base task order contracts competitively through a Broad Agency Announcement (BAA). Will now award task order contracts for projects as they are identified. Award of the first set of task orders is expected 2nd quarter FY12.

# E. Performance Metrics

<b>T</b> II I I I I	. · · · · · · · · · · · · · · · · · · ·	
This program has a business sace th	it illictitiae tha invactment in tarme i	st acanamic and raadinace handtite
This program has a business case the	II IUSIIIIES IIIE IIIVESIIIIEIII III IEIIIIS (	JI EGUNUNIG AND TEAUNESS DENEMS.
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY

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

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0708011S: Industrial Preparedness
Manufacturing Technology (IP ManTech)

**PROJECT** 

3: Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)

**DATE:** February 2012

Support (\$ in Millions)				FY 2012		FY 2013 Base			2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
a. Manufacturing Process Support Costs	C/CPFF	Advanced Technologies International:North Charleston, South Carolina	10.713	2.016	Mar 2012	2.428	Feb 2013	-		2.428	Continuing	Continuing	Continuing
b. Manufacturing Process Support Costs	C/CPFF	Honeywell International Inc.:Phoenix, Arizona	0.007	0.300	Mar 2012	0.300	Feb 2013	-		0.300	Continuing	Continuing	Continuing
		Subtotal	10.720	2.316		2.728		-		2.728			
Total Pric Years Cost			FY 2	2012	FY 2013 2 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals 10.720		10.720	2.316		2.728		-		2.728				

Remarks

Page 17 of 35

PROPRIATION/BUDGET ACTIVITY  100: Research, Development, Test & Evaluation, Defense-Wide Try 2011	O-ACT)
Digital Radiography Standard for Thin Section Steel Castings  Tools for Streamlining Casting Supply Chains.  Additive Manufacturing of Airfoil Investment Casting Cores by Ceramic Sterolithography  Defense Casting for Supply Chain Integration and Statistical Properties for MMPDS	
Digital Radiography Standard for Thin Section Steel Castings  Tools for Streamlining Casting Supply Chains.  Additive Manufacturing of Airfoil Investment Casting Cores by Ceramic Sterolithography  Defense Casting for Supply Chain Integration and Statistical Properties for MMPDS	3 4
Steel Castings Tools for Streamlining Casting Supply Chains.  Additive Manufacturing of Airfoil Investment Casting Cores by Ceramic Sterolithography  Defense Casting for Supply Chain Integration and Statistical Properties for MMPDS	
Additive Manufacturing of Airfoil Investment Casting Cores by Ceramic Sterolithography  Defense Casting for Supply Chain Integration and Statistical Properties for MMPDS	
Casting Cores by Ceramic Sterolithography  Defense Casting for Supply Chain Integration and Statistical Properties for MMPDS	
and Statistical Properties for MMPDS	
Modeling of Steel Casting Performance - Dimensions and Distortion.	
Lightweight High Strength Cast Alloys Process Development.	
Lube-free Die Casting.	

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY

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

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0708011S: Industrial Preparedness
Manufacturing Technology (IP ManTech)

PROJECT

3: Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)

DATE: February 2012

# Schedule Details

	St	art	Eı	nd
Events	Quarter	Year	Quarter	Year
Digital Radiography Standard for Thin Section Steel Castings	3	2011	2	2013
Tools for Streamlining Casting Supply Chains.	2	2012	2	2017
Additive Manufacturing of Airfoil Investment Casting Cores by Ceramic Sterolithography	2	2012	2	2017
Defense Casting for Supply Chain Integration and Statistical Properties for MMPDS Standard.	2	2012	2	2017
Modeling of Steel Casting Performance - Dimensions and Distortion.	2	2012	2	2017
Lightweight High Strength Cast Alloys Process Development.	2	2012	2	2017
Lube-free Die Casting.	2	2012	2	2017

Exhibit R-2A, RDT&E Project Just	tification: PE	3 2013 Defer	nse Logistics	s Agency		DATE: February 2012						
								4: Procurement Readiness Optimization- Forging Advanced System Technology (I FAST)				
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost	
4: Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)	1.188	1.102	1.308	-	1.308	1.335	1.358	1.380	1.403	Continuing	Continuing	
Quantity of RDT&E Articles												

# A. Mission Description and Budget Item Justification

Weapon system spare parts that use forgings are responsible for a disproportionate share of DLA backorders. Forged parts are ~2% of National Stock Numbered parts but represent ~4% of all backorders, and when only the oldest backorders are considered, up to 10% of them are forgings. This program develops methods and technology to improve the supply of forged parts. This program takes a holistic view of the problem and attacks root causes inside DLA, at DLA's engineering support activity partners in the Services, and at DLA forging suppliers. The program has three thrusts: Business Enterprise Integration to improve supply support approaches; FORGE-IT to develop and improve technical problems; and R&D which develops new technology for forging suppliers, including new methods for making forge dies (typically the longest lead time item) and for simulation of metal flow inside the forge die (to eliminate trial and error development of the die).

FY 2011 Accomplishments:  Develop and deploy a web based tool that links forging customers to forging suppliers; lean six sigma process improvements at forges; re-evaluate and develop multi-material, multi-method evaluation tool. Address vexing forging supply chains to improve forging design and acquisition processes. Exploit the strength and toughness of "the Atlas of Metal Products" in old and new weapon systems. Begin planning for acquisition to solicit for next forging program.  FY 2012 Plans:  Finalize a web based tool that links forging customers to forging suppliers; begin implementation of lean six sigma process improvements at forges; develop multi-material, multi-method evaluation tool. Address vexing forging supply chains to improve forging design and acquisition processes. Initiate procurement action for next program.  FY 2013 Plans:  Finalize projects under current initiative, such as software for lean six sigma process improvements at forges; deploy multi-material, multi-method evaluation tool. Also, finalize and award new contract for next tasks and projects.	B. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013
Develop and deploy a web based tool that links forging customers to forging suppliers; lean six sigma process improvements at forges; re-evaluate and develop multi-material, multi-method evaluation tool. Address vexing forging supply chains to improve forging design and acquisition processes. Exploit the strength and toughness of "the Atlas of Metal Products" in old and new weapon systems. Begin planning for acquisition to solicit for next forging program.  FY 2012 Plans:  Finalize a web based tool that links forging customers to forging suppliers; begin implementation of lean six sigma process improvements at forges; develop multi-material, multi-method evaluation tool. Address vexing forging supply chains to improve forging design and acquisition processes. Initiate procurement action for next program.  FY 2013 Plans:  Finalize projects under current initiative, such as software for lean six sigma process improvements at forges; deploy multi-material, multi-method evaluation tool. Also, finalize and award new contract for next tasks and projects.	Title: Procurement Readiness Optimization-Forging Advanced System Technology Accomplishments/Plans	1.188	1.102	1.308
Finalize a web based tool that links forging customers to forging suppliers; begin implementation of lean six sigma process improvements at forges; develop multi-material, multi-method evaluation tool. Address vexing forging supply chains to improve forging design and acquisition processes. Initiate procurement action for next program.  FY 2013 Plans:  Finalize projects under current initiative, such as software for lean six sigma process improvements at forges; deploy multi-material, multi-method evaluation tool. Also, finalize and award new contract for next tasks and projects.	Develop and deploy a web based tool that links forging customers to forging suppliers; lean six sigma process improvements at forges; re-evaluate and develop multi-material, multi-method evaluation tool. Address vexing forging supply chains to improve forging design and acquisition processes. Exploit the strength and toughness of "the Atlas of Metal Products" in old and new			
Finalize projects under current initiative, such as software for lean six sigma process improvements at forges; deploy multimaterial, multi-method evaluation tool. Also, finalize and award new contract for next tasks and projects.	Finalize a web based tool that links forging customers to forging suppliers; begin implementation of lean six sigma process improvements at forges; develop multi-material, multi-method evaluation tool. Address vexing forging supply chains to improve			
Accomplishments/Planned Programs Subtotals 1.188 1.1	Finalize projects under current initiative, such as software for lean six sigma process improvements at forges; deploy multi-			
	Accomplishments/Planned Programs Subtotals	1.188	1.102	1.308

Exhibit R-2A, RDT&E Project Justification: PB 2013 Defense Logi	stics Agency	<b>DATE:</b> February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development	PE 0708011S: Industrial Preparedness Manufacturing Technology (IP ManTech)	4: Procurement Readiness Optimization- Forging Advanced System Technology (PRO- FAST)
C. Other Program Funding Summary (\$ in Millions) N/A		
D. Acquisition Strategy A Broad Agency Announcement (BAA) is planned.		
E. Performance Metrics  This program has a business case which justifies the investment in	terms of economic and readiness benefits.	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY

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

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0708011S: Industrial Preparedness
Manufacturing Technology (IP ManTech)

PROJECT

4: Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)

**DATE:** February 2012

Support (\$ in Millions)				FY 2	2012		2013 se		2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
a. Manufacturing Process Support Costs	C/CPFF	Advanced Technologies International:North Charleston, South Carolina	5.729	1.102	Jan 2012	1.308	Feb 2013	-		1.308	Continuing	Continuing	Continuing
		Subtotal	5.729	1.102		1.308		-		1.308			
			Total Prior Years Cost	FY 2	2012		2013 se		2013 CO	FY 2013 Total	Cost To	Total Cost	Target Value of Contract
		Project Cost Totals	5.729	1.102		1.308		-		1.308			

Remarks

ibit R-4, RDT&E Schedule Profile: PB 2013 D	ogistic	s Ag	ency											DA.	TE:	Febi	uary	y 20	12			
PROPRIATION/BUDGET ACTIVITY D: Research, Development, Test & Evaluation, E T: Operational Systems Development	)efense-	-Wide		R-1 ITEM PE 07080 <sup>-</sup> Manufactu	PROJECT 4: Procurement Readiness Optimization- Forging Advanced System Technology (PRO- FAST)																	
	FY	2011		FY 2012	F	Y 2013			FY 201	14		FY 2	015		F	Y 2	2016		F	Y 20	17	
	1 2	3 4	1	2 3 4	1	2 3	4	1	2 3	4	1	2	3	4	1	2	3	4	1	2	3 4	4
DoD Procurement Tools and Technical Support																						
Simulation of Heat Treat Distortion																						
Simulation and Workforce Development																						
Rapid Low Cost Data Generation for Simulation																						
Next Generation Low Cost Aluminum Alloys																						
National Forging Tooling Database (NFTD)																						
Metal and Process Optimization (MPO)																						
SmartChart™ Intelligent Process Tools for																						
Forges																						_

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Defense Logistics	Agency	DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
0400: Research, Development, Test & Evaluation, Defense-Wide	PE 0708011S: Industrial Preparedness	4: Procurement Readiness Optimization-
BA 7: Operational Systems Development	Manufacturing Technology (IP ManTech)	Forging Advanced System Technology (PRO-
		FAST)

# Schedule Details

	St	art	E	nd
Events	Quarter	Year	Quarter	Year
DoD Procurement Tools and Technical Support	1	2011	2	2013
Simulation of Heat Treat Distortion	3	2013	4	2017
Simulation and Workforce Development	1	2011	4	2013
Rapid Low Cost Data Generation for Simulation	3	2013	4	2017
Next Generation Low Cost Aluminum Alloys	3	2013	4	2017
National Forging Tooling Database (NFTD)	1	2011	2	2013
Metal and Process Optimization (MPO)	1	2011	4	2013
SmartChart™ Intelligent Process Tools for Forges	1	2011	2	2013

Exhibit R-2A, RDT&E Project Just	tification: PE	3 2013 Defei	nse Logistic	s Agency					DATE: Febr	ruary 2012				
APPROPRIATION/BUDGET ACTIV 0400: Research, Development, Test BA 7: Operational Systems Develop	t & Evaluation	n, Defense-V	Vide	PE 070801	IOMENCLAT 1S: Industriating Technolog	l Preparedn		PROJECT 5: Material	Acquisition E	quisition Electronics (I				
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost			
5: Material Acquisition Electronics (MAE)	10.507	11.846	14.465	-	14.465	11.987	12.184	12.371	12.575	Continuing	Continuing			
Quantity of RDT&E Articles														

# A. Mission Description and Budget Item Justification

B. Accomplishments/Planned Programs (\$ in Millions)

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.

D. Accomplianments i larinea i regiame (# in minions)	1 1 2011	1 1 2012	1 1 2013
Title: Material Acquisition Electronics Accomplishments/Plans	10.507	11.846	14.465
FY 2011 Accomplishments:  MAE will continue to develop additional capability and expand it to succeeding generations of obsolete ICs through successive technology nodes. These technologies will be demonstrated through performance based specification and Weapons System IC insertions. In addition, there has been increased DoD concern over trusted sourcing issues, as most IC design and production has migrated to overseas suppliers.			
FY 2012 Plans:  MAE will formulate specific device family targets and initiate a Linear Emulation thrust. It will initiate 250 nanometer Emulation fabrication process (High Performance (speed) and Density) development providing additional FSC 5962 coverage. It will continue 350 nanometer Emulation fabrication process development; bringing new capabilities to the Customers and Agency. It will integrate the Integrated Circuit Characterization tool advancements into Emulation flow, enabling supply for non-procurables. It will transition fully-developed and verified 800 nanometer emulation production capabilities to DLA Land and Maritime for full-scale production of previously non-procurable ICs.			
FY 2013 Plans:  MAE will transition additional Advanced CMOS Digital Microcircuit Emulation capability into full-scale production increasing DLA's ability to re-establish sourcing of non-procurable microcircuit NSNs. MAE will also transition higher density Read-Only- and Random-Access Memory Emulation Capability 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			

FY 2011

FY 2012

FY 2013

Exhibit R-2A, RDT&E Project Justification: PB 2013 Defense Logistics	s Agency		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
0400: Research, Development, Test & Evaluation, Defense-Wide	PE 0708011S: Industrial Preparedness	5: Material	Acquisition Electronics (MAE)
BA 7: Operational Systems Development	Manufacturing Technology (IP ManTech)		

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013
and will increase the potential emulation production envelope by several hundred NSNs. MAE will also initiate specific process, design and test verification developments in its new Linear Emulation thrust. It will initiate planning for the specific emulation technology implementations to support specific device family groups. It will continue 250 nanometer Emulation fabrication process development providing additional FSC 5962 coverage in its Digital Emulation thrust. It will complete assessment of a Trusted Design capability, responding to Agency, Customer, and DoD concerns. It will continue 350 nanometer Emulation fabrication process development, bringing new capabilities to the Customers and Agency.			
process development, bringing new capabilities to the Customers and Agency.			
Accomplishments/Planned Programs Subtotals	10.507	11.846	14.465

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

N/A

# D. Acquisition Strategy

N/A

# E. Performance Metrics

Transition of one technology implementation (base array) to low-rate initial production or full-scale production.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development

PE 0708011S: Industrial Preparedness
Manufacturing Technology (IP ManTech)

5: Material Acquisition Electronics (MAE)

**DATE:** February 2012

Support (\$ in Millions)				FY 2	2012	FY 2 Ba			2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
a. Manufacturing Process Support Costs	C/CPFF	SRI International:Princeton, New Jersey	50.366	11.846	Oct 2012	14.465	Oct 2012	-		14.465	Continuing	Continuing	Continuing
		Subtotal	50.366	11.846		14.465		-		14.465			
			Total Prior Years Cost	FY 2	2012	FY 2 Ba			2013 CO	FY 2013 Total	Cost To	Total Cost	Target Value of Contract
		Project Cost Totals	50.366	11.846		14.465		-		14.465			

Remarks

R-1 Line #245

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY

0400: Research, Development, Test & Evaluation, Defense-Wide
BA 7: Operational Systems Development

PROJECT

PE 0708011S: Industrial Preparedness
Manufacturing Technology (IP ManTech)

DATE: February 2012

F-1 ITEM NOMENCLATURE
PE 0708011S: Industrial Preparedness
Manufacturing Technology (IP ManTech)

		FY 2011			FY 2011 FY 2012						FY 2013			FY 2014			FY 2015				FY 2016					FY 2017		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Perform Gap Analysis (GA)																									İ			
Implement Process Improvements																												-
Plan required Process Improvements																												_
Perform Process Review																												
Transition New Microcircuit Designs to LRIP																												
Develop Low Rate Initial Production (LRIP) Capability																												-
Develop Prototypes for Test and Insertion																												
Update Design Library																												-
Perform Base Array Designs Required to Fill GA																												
Monitor and Adjust Process Improvements																												_

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY

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

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0708011S: Industrial Preparedness

Manufacturing Technology (IP ManTech)

**PROJECT** 

5: Material Acquisition Electronics (MAE)

**DATE:** February 2012

# Schedule Details

	Sta	art	E	nd
Events	Quarter	Year	Quarter	Year
Perform Gap Analysis (GA)	1	2011	4	2016
Implement Process Improvements	1	2011	4	2016
Plan required Process Improvements	1	2011	4	2016
Perform Process Review	1	2011	4	2016
Transition New Microcircuit Designs to LRIP	1	2011	4	2016
Develop Low Rate Initial Production (LRIP) Capability	1	2011	4	2016
Develop Prototypes for Test and Insertion	1	2011	4	2016
Update Design Library	1	2011	4	2016
Perform Base Array Designs Required to Fill GA	1	2011	4	2016
Monitor and Adjust Process Improvements	1	2011	4	2016

Exhibit R-2A, RDT&E Project Just	stification: PE	3 2013 Defe	nse Logistic	s Agency					DATE: Feb	ruary 2012					
APPROPRIATION/BUDGET ACT 0400: Research, Development, Te BA 7: Operational Systems Development	st & Evaluatio	n, Defense-V	Vide	PE 070801	NOMENCLA 1S: Industria ring Technolo	l Preparedn		PROJECT 6: Battery Network (BATTNET)							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2016	FY 2017	Cost To Complete	Total Cost					
6: Battery Network (BATTNET)	0.947	1.725	2.008	-	2.008	2.008	2.001	2.033	2.068	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 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 FY11, DLA received 143K orders for 3.6M batteries at \$238M Net Value compared to FY10 (\$237M) and FY09 (\$254M).

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013
Title: BATTNET Accomplishments/Plans	0.947	1.725	2.008
FY 2011 Accomplishments:  BATTNET R&D awarded three Short Term Projects (STP): "Coating Cost Reduction for Rechargeable Lithium-Ion Batteries", "Lithium-Ion Battery Modularity for Military Applications", and "Manufacturing Technology for Hybrid Li-CFx Primary Communications & Electronics Battery". Short term projects assure the prompt and sustained availability, quality, and affordability of military batteries. BATTNET R&D developed requirements for a military acceptable version of a rechargeable CR123 (ANSI C18.3M – 5018LC).			
FY 2012 Plans: BATTNET R&D will continue to be performed through identification and awards of new Short Term Projects (STP) with an expected duration of 18-24 months and an average funding of \$100K-\$500K per year. STP proposals are required to include a business case with specific metrics and transition plan for success. BATTNET R&D will also be collaborating on Advanced Battery Research proposals with DLA's Small Business Innovation Research (SBIR) program. A new BAA will be issued to refresh the partnerships in BATTNET R&D.			
FY 2013 Plans: BATTNET R&D has identified several potential Short Term Projects: Advancements in lithium power sources for the TOW Improved Target Acquisition System (ITAS) and Long Range Scout and Surveillance System (LRAS3) - a FY11 IBIF submission; Develop a rechargeable CR123 battery; Manufacturing advancements to critical vehicle batteries; and BCA for Defense battery monitoring and logistics system.			
Accomplishments/Planned Programs Subtotals	0.947	1.725	2.008

Exhibit R-2A, RDT&E Project Justification: PB 2013 Defense Logistic	DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
0400: Research, Development, Test & Evaluation, Defense-Wide	PE 0708011S: Industrial Preparedness	6: Battery N	Network (BATTNET)
BA 7: Operational Systems Development	Manufacturing Technology (IP ManTech)		

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

N/A

## 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 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.

#### E. Performance Metrics

Each Short Term Project (STP) will have performance metrics appropriate to its scope.	Also all STPs will include a business case to demonstrate return on investment
or a readiness case to calculate warfighter impact versus costs.	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY

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

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0708011S: Industrial Preparedness

Manufacturing Technology (IP ManTech)

**PROJECT** 

6: Battery Network (BATTNET)

**DATE:** February 2012

Support (\$ in Millions)	oort (\$ in Millions)				2012	FY 2 Ba	2013 ise	FY 2	2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
a. Manufacturing Process Support Costs	C/CPFF	Quallion LLC:Sylmar, CA	0.331	0.364	Dec 2011	0.225	Dec 2012	-		0.225	Continuing	Continuing	Continuing
b. Manufacturing Process Support Costs	C/CPFF	Yardney Technical Products:Pawcatuck, CT	0.050	0.025	Dec 2011	0.025	Dec 2012	-		0.025	Continuing	Continuing	Continuing
c. Manufacturing Process Support Costs	C/CPFF	EaglePicher Technologies:Joplin, MO	0.050	0.305	Dec 2011	0.125	Dec 2012	-		0.125	Continuing	Continuing	Continuing
d. Manufacturing Process Support Costs	C/CPFF	Eskra Technical Products:Saukville, WI	0.465	0.300	Dec 2011	0.300	Dec 2012	-		0.300	Continuing	Continuing	Continuing
e. Manufacturing Process Support Costs	C/CPFF	Lockheed Martin Corporation:Grand Prairie, TX	0.050	0.025	Dec 2011	0.300	Dec 2012	-		0.300	Continuing	Continuing	Continuing
f. Manufacturing Process Support Costs	C/CPFF	Redblack Communications:Hollywo	ood, 0.300	0.195	Dec 2011	0.125	Dec 2012	-		0.125	Continuing	Continuing	Continuing
g. Manufacturing Process Support Costs	C/CPFF	Saft America:Cockeysville, MD	0.050	0.025	Dec 2011	0.500	Dec 2012	-		0.500	Continuing	Continuing	Continuing
h. Manufacturing Process Support Costs	C/CPFF	Spectrum Brands:Madison, WI	0.025	0.025	Dec 2011	0.025	Dec 2012	-		0.025	Continuing	Continuing	Continuing
i. Manufacturing Process Support Costs	C/CPFF	Innovative Battery Consulting:Southport, NC	0.075	0.125	Dec 2011	0.075	Dec 2012	-		0.075	Continuing	Continuing	Continuing
j. Manufacturing Process Support Costs	C/CPFF	Alion Science & Technology:Rome, NY	0.513	0.228	Dec 2011	0.308	Dec 2012	-		0.308	Continuing	Continuing	Continuing
k. Manufacturing Process Support Costs	C/FP	Logistics Management Institute (LMI):McLean, VA	0.050	0.108	Dec 2011	-		-		-	Continuing	Continuing	
		Subtotal	1.959	1.725		2.008		-		2.008			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Defense Logistics Agency  DATE: February 2012											
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defen BA 7: Operational Systems Development	se-Wide	PE 0708011S:	MENCLATURE Industrial Preparedi Technology (IP Man		PROJECT 6: Battery Network (BATTNET)						
Extr. operational dysteme Development	Total Prior	,									

	Total Prior							Target
	Years		FY 2	2013 FY	2013 FY 2013	Cost To		Value of
	Cost	FY 2	2012 Ba	ise O	CO Total	Complete To	tal Cost	Contract
Project Cost Totals	1.959	1.725	2.008	-	2.008			

Remarks

**DATE:** February 2012 Exhibit R-4, RDT&E Schedule Profile: PB 2013 Defense Logistics Agency **PROJECT** 

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE

0400: Research, Development, Test & Evaluation, Defense-Wide PE 0708011S: Industrial Preparedness 6: Battery Network (BATTNET)

BA 7: Operational Systems Development Manufacturing Technology (IP ManTech)

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	1	1	T	T	T	$\neg$
FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	
F1 2012	F1 2013	F1 2014	F1 2013	F1 2010	F1 2017	
						ー

		ΓY	201	11   FY 2012   FY 2013   FY 2014		FY 2014 FY 2015					)	FY 2016					FY 2017											
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Battery Network Program																												
Coating Cost Reduction for Rechargeable Lithium-Ion Batteries (Eskra Technical Products)																												
Lithium-Ion Battery Modularity for Military Applications (Quallion)																												
Manufacturing Technology for Hybrid Li-CFx Primary C&E battery (RedBlack/Ultralife)																												
Zero-volt Battery Technology for Military Applications (Quallion)																												
Production Developments for Li-CFx Batteries (EaglePicher)																												

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Defense Logistics Agency

APPROPRIATION/BUDGET ACTIVITY

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

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0708011S: Industrial Preparedness

Manufacturing Technology (IP ManTech)

**PROJECT** 

6: Battery Network (BATTNET)

**DATE:** February 2012

# Schedule Details

	St	art	End			
Events	Quarter	Year	Quarter	Year		
Battery Network Program	1	2011	4	2017		
Coating Cost Reduction for Rechargeable Lithium-Ion Batteries (Eskra Technical Products)	2	2011	1	2012		
Lithium-Ion Battery Modularity for Military Applications (Quallion)	3	2011	2	2012		
Manufacturing Technology for Hybrid Li-CFx Primary C&E battery (RedBlack/Ultralife)	4	2011	3	2013		
Zero-volt Battery Technology for Military Applications (Quallion)	2	2012	4	2013		
Production Developments for Li-CFx Batteries (EaglePicher)	2	2012	4	2013		

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