Exhibit R-2, RDT&E Budget Item Justification							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7				R-1 Item Nomenclature: Program Title: Manufacturing Technology Program Element: 708011S				
Cost ($ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	35.867	33.570	20.114	20.627	20.978	21.475	21.880	22.207
Project 1: Combat Rations (CR)	1.970	1.998	1.964	1.986	1.981	2.005	2.045	2.078
Project 2: Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Research Network)	3.689	3.713	3.908	4.070	4.261	4.352	4.439	4.509
Project 3: Procurement Readiness Optimization-Advanced Casting Technology (PRO-ACT)	2.388	1.303	2.601	2.644	2.662	2.702	2.732	2.756
Project 4: Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)	.999	1.112	1.210	1.245	1.261	1.296	1.321	1.343
Project 5: Material Acquisition: Electronics (MAE)	10.113	10.550	10.431	10.682	10.813	11.120	11.343	11.521
Project 6: Defense Microelectronics Activity (DMEA), Mfg Engineering of Spray Cooling	4.190	0	0	0	0	0	0	0
Project 7: Other Congressionally Added Programs (OCAs)	12.518	14.894	0	0	0	0	0	0

Exhibit R-2, RDT&E Budget Item Justification	Date: February 2007
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7	R-1 Item Nomenclature: Program Title: Manufacturing Technology Program Element: 708011S

Mission Description and Budget Item Justification:

The Defense Logistics Agency (DLA) Manufacturing Technology (ManTech) Program supports the development of a responsive, world-class manufacturing capability to affordably meet the warfighters' needs throughout the defense system life cycle. 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 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). Defense Microelectronics Activity (DMEA) is an Office of the Secretary of Defense program that received Congressionally Directed funds in this Program Element. DLA is not involved with execution of this program. Other Congressional Adds (OCA) programs are Congressionally Directed efforts.

B. Program Change Summary:

	FY 2006	FY 2007	FY 2008	FY 2009
Previous PB07	34.667	18.748	19.358	19.763
Current BES	35.867	33.570	20.114	20.627
Total Adjustments	+1.200	+14.822	+.756	+.864

Change Summary Explanation:

FY 2006: $1.200 moved to the PRO-ACT project from the Log R&D program to provide a critical level of research activity.
FY 2007: $14.894 in Congressional Adds. -$.071 withheld by OSD.
FY 2008: $1.200 moved to the PRO-ACT project from the Log R&D program. Fiscal guidance cut of $.444.
FY 2009: $1.200 moved to the PRO-ACT project from the Log R&D program. Fiscal guidance cut of $.336.

C. Other Program Funding Summary: N/A

D. Acquisition Strategy: N/A

E. Performance Metrics: N/A

Exhibit R-2a, RDT&E Project Justification							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7				Project Name and Number - Combat Rations (CR), Project 1				
Cost ($ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project 1: Combat Rations	1.970	1.998	1.964	1.986	1.981	2.005	2.045	2.078
RDT&E Articles Quantity- N/A								

A. Mission Description and Budget Item Justification:

In FY 2005 the Defense Supply Center Philadelphia (DSCP) sold $3.9B in subsistence goods and services to the Department of Defense, making it DSCP's largest supply chain. Sales in subsistence continue to grow, largely due to requirements for operations Iraqi Freedom and Enduring Freedom. 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. The objectives are increased readiness, improved quality, increased ration variety, decreased cost. The CORANET program engages all elements of the supply chain including producers, military services, Army Natick, USDA, FDA, DLA, DSCP and academia to research and transition improved technologies for operational rations. To insure technology validation and transition, the CORANET program also maintains a demonstration site.

B. Accomplishments/Planned Program:

	FY 06	FY 07	FY 08	FY 09
Accomplishment/ Effort/Subtotal Cost	1.970	1.998	1.964	1.986
RDT&E Articles Quantity – N/A				

FY 2006 Accomplishments: ($1.970)
- Quality Improvement Cheese Spread-Improved formulations for MRE item to reduce discoloration and improve shelf life ($.126)
- Ultra High Pressure Processing Eggs-Improved processing and formulation for MRE egg entrees to increase soldier acceptance ($.490)
- Acceptance Test for Retort Pouch Material-Reduced cost and weight of packaging materials. ($.203)
- Identify, define, review and implement research activities ($0.651)
- Demonstration site ($0.500)-

FY 2007 Plans: ($1.998
- Technology Transition Retort Racks-Validation and transition of technology for reduced defects and failures in retort racks ($.397
- Technology Transition Ultra Sonic Seal-Validation and Transition of Technology to reduce seal defects in the MRE pouch. ($.200
- Microbial Studies MRE Shelf Stable Pocket Sandwich-Acceptance of microbiological growth data by regulatory agencies ($.225)
- Knurled Seal Heat Bar Technology-Improved strength and increased production yield for MRE pouches ($.211)
- Oxygen Absorbing Packaging Materials-Elimination of scavenger sachets and improved shelf life ($.315)
- Identify, define, review and implement research activities ($0.250)
- Demonstration site ($0.400)

Exhibit R-2a, RDT&E Project Justification							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7				Project Name and Number - Combat Rations (CR), Project 1				
Cost ($ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project 1: Combat Rations	1.970	1.999	1.964	1.986	1.981	2.005	2.045	2.078
RDT&E Articles Quantity- N/A								

FY 2008 Plans: ($1.964)
- Identify, define, review and implement research activities ($0.500)
- Demonstration site ($0.400)
- New Short Term Projects and Partner support ($1.064)

FY 2009 Plans ($1.986)
- Identify, define, review and implement research activities ($0.500)
- Demonstration site ($0.400)
- New Short Term Projects and Partner support ($1.086)

C. Other Program Funding Summary: N/A

D. Acquisition Strategy: N/A

E. Major Performers: N/A

Exhibit R-3, RDT&E Program Element/Project Cost Breakdown									Date: February 2007
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7			Project Name and Number - Combat Rations (CR), Project 1						
A. Project Cost Breakdown **Combat Rations**									
Project Cost Categories				FY 2006	FY 2007	FY 2008	FY 2009		
a. Manufacturing Process Support Costs				1.970	1.999	1.964	1.986		
B. Budget Acquisition History and Planning Information Performing Organizations									
Contractor or Government Performing Activity	Contractor Method/Type Or Funding Vehicle	Award or Obligation Date	Performing Project Activity BAC	FY 2006	FY 2007	FY 2008	FY 2009	Budget to Complete	Total Program
				Cont	Cont	Cont.			
Ameriqual	Cost, No Fee	12/2001	Partner						
Georgia, Univ of	Cost, No Fee	12/2001	Partner, STP*						
NCFST	Cost, No Fee	12/2001	Partner, STP						
Ohio State Univ	Cost, No Fee	12/2001	Partner, STP						
R&D Associates	Cost, No Fee	12/2001	Partner, STP						
Rutgers	Cost, No Fee	12/2001	Partner, STP, Demo						
SOPAKCO	Cost, No Fee	12/2001	Partner, STP						
Sterling	Cost, No Fee	11/2001	Partner						
TEES (TAMU)	Cost, No Fee	12/2001	Partner, STP						
Tennessee, Univ of	Cost, No Fee	12/2001	Partner, STP						
Wornick	Cost, No Fee	12/2001	Partner						
Wash State U	Cost, No Fee	12/2001	Partner, STP						
Michigan State U	Cost, No Fee	7/2006	Partner						
Virginia Tech	Cost, No fee	7/2006	Partner						
Diversapak	Cost, No Fee	7/2006	Partner						
Truitt	Cost, No Fee	7/2006	Partner						
Oregon Freeze Dry	Cost, No Fee	7/2006	Partner						
				1.970	1.999	1.964	1.986		
Government Furnished Property: None.								*STP = "Short Term Project"	

Exhibit R-4, Schedule Profile																																Date: February 2007
Appropriation/Budget Activity RDT&E, Defense-Wide BA: 7					Program Element Number and Name PE 0708011S Industrial Preparedness Manufacturing Technology												Project Name and Number - Combat Rations (CR), Project 1																
Fiscal Year	**2006**				**2007**				**2008**				**2009**				**2010**				**2011**				**2012**				**2013**			
	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**	**1**	**2**	**3**	**4**
Quality Improvement Cheese Spread	**X**	**X**	**X**	**X**	**X**	**X**																										
Ultra High Pressure Processing Eggs	**X**	**X**	**X**	**X**	**X**	**X**																										
Acceptance Test for Retort Pouch Material	**X**	**X**																														
Technology Transition Retort Racks					**X**	**X**	**X**	**X**	**X**	**X**																						
Microbial Studies MRE Shelf Stable Pocket Sandwich					**X**	**X**	**X**	**X**	**X**	**X**																						
Knurled Seal Heat Bar Technology					**X**	**X**	**X**	**X**	**X**	**X**																						
Oxygen Absorbing Packaging Materials					**X**	**X**	**X**	**X**	**X**	**X**																						
New Short Term Projects									**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Demonstration Site	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Identify, define, review and implement research activities	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**

Exhibit R-4a, Schedule Detail							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-Wide BA: 7	Program Element Number and Name PE 0708011S Industrial Preparedness Manufacturing Technology			Project Name and Number - Combat Rations (CR), Project 1				
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Quality Improvement Cheese Spread	1-4Q	1-2Q						
Ultra High Pressure Processing Eggs	1-4Q	1-2Q						
Acceptance Test for Retort Pouch Material	3-4Q							
Technology Transition Retort Racks		1-4Q	1-2Q					
Microbial Studies MRE Shelf Stable Pocket Sandwich		1-4Q	1-2Q					
Knurled Seal Heat Bar Technology		1-4Q	1-2Q					
Oxygen Absorbing Packaging Materials		1-4Q	1-2Q					
New Short Term Projects			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Demonstration Site	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Identify, define, review and implement research activities	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q

Exhibit R-2a, RDT&E Project Justification							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7				Project Name and Number - Customer Driven Uniform Manufacturing (CDUM), Project 2				
Cost ($ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project 2: Customer Driven Uniform Manufacturing	3.689	3.713	3.908	4.070	4.261	4.352	4.439	4.509
RDT&E Articles Quantity- N/A								

A. Mission Description and Budget Item Justification:

The Department of Defense, through the Defense Logistics Agency, purchased $2.6 billion of clothing and textile items in 2004. The lead-time is up to 15 months and the current inventory acquisition value is over $1 billion. The current focus of Apparel Research Network (ARN) is Customer Driven Uniform Manufacturing (CDUM). ARN-CDUM explores the application of advanced manufacturing and information technologies to the end-to-end management of non-recruit clothing (NRC). Each NRC supply chain has unique requirements not typically found in apparel industrial operations. ARN-CDUM will experiment with ways to help manufacturers meet the requirements specific to NRC (i.e. raw material tracking). It will also explore ways to account for NRC after it has left the wholesale system. The benefits will include improved asset visibility, accountability, and shelf-life management throughout an items' life cycle, reduced item cost, reduced operational costs, and improved readiness. Experimentation will identify promising technical solutions, prototype alternative solutions, and validate user requirements.

B. Accomplishments/Planned Program

	FY 06	FY 07	FY 08	FY 09
Accomplishment/ Effort/Subtotal Cost	3.689	3.713	3.908	4.070
RDT&E Articles Quantity – N/A				

FY 2006 Accomplishments: ($3.689)
- Non-recruit clothing (NRC) business process baseline analyses, New Start ($0.445)
- Radio Frequency Identification Device (RFID)/Advanced Identification Technology (AIT) pilots for the NRC supply chain including Joint Service Lightweight Integrated Suite Technology (JSLIST), Individual Body Armor, and the Advanced Combat Uniform (ACU), New Start ($1.150)
- Life cycle management for NRC, New Start ($1.080)
- Extend from end-item manufacturers to fabric suppliers ($1.014)

FY 2007 Plans: ($3.713)
- Expansion, enhancement and refinement of RFID/AIT initiatives. ($.986)
- Expansion, enhancement and refinement of non-recruit clothing initiatives. ($2.727)

FY 2008 Plans: ($3.908)
- RFID/AIT Prototype Demonstrations. ($1.908)
- NRC Prototype Demonstrations. ($2.000)

Exhibit R-2a, RDT&E Project Justification							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7				Project Name and Number - Customer Driven Uniform Manufacturing (CDUM), Project 2				
Cost ($ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project 2: Customer Driven Uniform Manufacturing	3.689	3.713	3.908	4.070	4.261	4.352	4.439	4.509
RDT&E Articles Quantity- N/A								

FY 2009 Plans ($4.070)
- Expanded RFID/AIT Prototype Demonstrations ($2.070)
- Expanded NRC Prototype Demonstrations ($2.000)

C. Other Program Funding Summary: N/A

D. Acquisition Strategy: N/A

E. Major Performers: AdvanTech, Inc., Annapolis, MD. Award Date 3/2003, Cost Plus Fixed-Fee (CPFF), 3 Year base, 2 two year options. Contractor performs research and development in the area of supply chain management and integration.

Product Data Integration Technologies, Inc. (PDIT), Inc., Long Beach, CA, Award Date 3/2002, CPFF, 3 year base, 2 two year options. Contractor performs research and development in the area of data base development for real time asset visibility and automated processing of electronic transactions.

Human Solutions NA, Inc., Dearborn, MI, Award Date 3/2002, CPFF, 3 year base, 2 two year options. Contractor performs research and development in the area of 3D body scanning integration into supply chain management systems.

Exhibit R-3, RDT&E Program Element/Project Cost Breakdown	Date: February 2007
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7	Project Name and Number - Customer Driven Uniform Manufacturing (CDUM), Project 2

A. Project Cost Breakdown

Customer Driven Uniform Manufacturing

Project Cost Categories	FY 2006	FY 2007	FY 2008	FY 2009
a. Manufacturing Process Support Costs	3.689	3.713	3.908	4.070

B. Budget Acquisition History and Planning Information

Performing Organizations

Contractor or Government Performing Activity	Contractor Method/Type Or Funding Vehicle	Award or Obligation Date	Performing Project Activity BAC	FY 2006	FY 2007	FY 2008	FY 2009	Budget to Complete	Total Program
				3.689	3.713	3.908	4.070		
PDIT	Cost Plus Fixed Fee/Contractor	03/2002							
AdvanTech	Cost Plus Fixed Fee/Contractor	03/2002							
Human Solutions	Cost Plus Fixed Fee/Contractor	03/2002							

Government Furnished Property: None.

Exhibit R-4, Schedule Profile																																Date: February 2007
Appropriation/Budget Activity RDT&E, Defense-Wide BA: 7									Program Element Number and Name PE 0708011S Industrial Preparedness Manufacturing Technology												Project Name and Number - Customer Driven Uniform Manufacturing (CDUM), Project 2															
Fiscal Year	**2006**				**2007**				**2008**				**2009**				**2010**				**2011**				**2012**				**2013**			
	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**	**1**	**2**	**3**	**4**
NRC business process baseline analyses.			x	x	x	x	x	x	x	x	x	x																				
RFID/AIT pilots for the NRC supply chain including JSLIST, Individual Body Armor and the ACU			x	x	x	x	x	x	x	x	x	x																				
Life cycle management for NRC			x	x	x	x	x	x	x	x	x	x																				
Extend from end-item manufacturers to fabric suppliers			x	x	x	x	x	x	x	x	x	x																				
Expansion, enhancement and refinement of RFID/AIT initiatives							x	x	x	x	x	x	x	x	x	x	x	x	x	x												
Expansion, enhancement and refinement of non-recruit clothing (NRC) initiatives							x	x	x	x	x	x	x	x	x	x	x	x	x	x												
RFID/AIT prototype demonstration											x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
NRC prototype demonstrations											x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		

Exhibit R-4a, Schedule Detail							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-Wide BA: 7	Program Element Number and Name PE 0708011S Industrial Preparedness Manufacturing Technology				Project Name and Number - Customer Driven Uniform Manufacturing (CDUM), Project 2			
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Non-recruit clothing (NRC) business process baseline analyses.	3-4Q	1-4Q	1-4Q					
RFID/AIT pilots for the NRC supply chain including JSLIST, Individual Body Armor and the ACU	3-4Q	1-4Q	1-4Q					
Life cycle management for NRC	3-4Q	1-4Q	1-4Q					
Extend from end-item manufacturers to fabric suppliers.	3-4Q	1-4Q	1-4Q	1-4Q	1-4Q			
Expansion, enhancement and refinement of RFID/AIT initiatives		3-4Q	1-4Q	1-4Q	1-4Q			
Expansion, enhancement and refinement of non-recruit clothing initiatives		3-4Q	1-4Q	1-4Q	1-4Q			
RFID/AIT prototype demonstrations			3-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-2Q
NRC prototype demonstrations			3-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-2Q

Exhibit R-2a, RDT&E Project Justification							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7				Project Name and Number - Procurement Readiness Optimization-Advanced Casting Technology (PRO-ACT), Project 3				
Cost ($ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project 3: Procurement Readiness Optimization-Advanced Casting Technology	2.388	1.303	2.601	2.644	2.662	2.702	2.732	2.756
RDT&E Articles Quantity- N/A								

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 19% of them are castings. This program develops methods and technology to improve the supply 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: Castings Advanced Systems Technology – Integration Team (CAST-IT); Enterprise Integration; and Foundry R&D.

B. Accomplishments/Planned Program

	FY 06	FY 07	FY 08	FY 09
Accomplishment/ Effort/Subtotal Cost	2.388	1.303	2.601	2.644
RDT&E Articles Quantity – N/A				

FY 2006 Accomplishments: ($2.388)

- CAST-IT solutions for resolving 1285 backordered parts from land, sea and maritime supply chains. These solutions ranged from developing new sources, to developing new technical data packages, solid models and simulation. Relationships with ESA partners were built.
- Solicitation for cast parts are being separately posted on the program's web site, now foundries can easily see parts they can make.
- Foundry R&D:
    - Integrated design of steel castings for service performance – multi-axial fatigue analyses from finite element simulation on test specimens and cast components were completed, and the results compared with test data
    - Rapid tooling – additional parts have been made on rapid tooling, and durability tests completed
    - Quality improvement – worked with American Society for Testing and Materials (ASTM) to complete the digital radiographic standard for aluminum castings
    - Environment for die casting design and evaluation – finalized the functions that allow a user (design, die maker, die caster) to rapidly set up the construction of runner, gate and overflow geometries needed to complete a bases die design, given a solid model, in a few minutes
    - Short run tooling advisor – final report completed
    - Integrated dimensional engineering for short-run castings – final changed completed in the Pattern Allowance Advisor

Exhibit R-2a, RDT&E Project Justification							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7				Project Name and Number - Procurement Readiness Optimization-Advanced Casting Technology (PRO-ACT), Project 3				
Cost ($ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project 3: Procurement Readiness Optimization-Advanced Casting Technology	2.388	1.303	2.601	2.644	2.662	2.702	2.732	2.756
RDT&E Articles Quantity- N/A								

FY 2007 – 2009 Plans:

There are three research elements: rapid acquisition, quality, and cost effectiveness of cast spare parts. Rapid acquisition will provide DLA with solutions to improve manufacturing speed and predictability, tools for capturing castings process data, and processes for applying casting solutions to small lot and short lead time procurements. Quality will develop DLA tools for improving technical data, tools for best value source selection, processes to qualify new materials and processes, tools to identify good casting applications, and improved standards. Cost effectiveness will develop casting applications to reduce cost.

C. Other Program Funding Summary: N/A

D. Acquisition Strategy: Competitive Broad Agency Announcement (BAA) evaluations complete

E. Major Performers: N/A

Exhibit R-3, RDT&E Program Element/Project Cost Breakdown	Date: February 2007
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7	Project Name and Number - Procurement Readiness Optimization-Advanced Casting Technology (PRO-ACT), Project 3

A. Project Cost Breakdown

Procurement Readiness Optimization—Advanced Casting Technologies (PRO-ACT)

Project Cost Categories	FY 2006	FY 2007	FY 2008	FY 2009
a. Manufacturing Process Support Costs	2.388	1.303	2.601	2.644

B. Budget Acquisition History and Planning Information

Performing Organizations

Contractor or Government Performing Activity	Contractor Method/Type Or Funding Vehicle	Award or Obligation Date	Performing Project Activity BAC	FY 2006	FY 2007	FY 2008	FY 2009	Budget to Complete	Total Program
				2.388	1.303	2.601	2.644		
AdvanTech, Inc	Cost Share Contract	6/23/00	12.585						
AdvanTech, Inc	Cost share	10/1/05	14.442						

Government Furnished Property: None.

Exhibit R-4, Schedule Profile																																Date: February 2007
Appropriation/Budget Activity RDT&E, Defense-Wide BA: 7									Program Element Number and Name PE 0708011S Industrial Preparedness Manufacturing Technology																Project Name and Number - Procurement Readiness Optimization-Advanced Casting Technology (PRO-ACT), Project 3										
Fiscal Year	**2006**				**2007**				**2008**				**2009**				**2010**				**2011**				**2012**				**2013**			
	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**	**1**	**2**	**3**	**4**
New Program - will demonstrate readiness improvements by developing and applying innovative methods of designing, manufacturing and buying weapon systems spares through advanced casting technology.	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**

Exhibit R-4a, Schedule Detail							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-Wide BA: 7	Program Element Number and Name PE 0708011S Industrial Preparedness Manufacturing Technology				Project Name and Number - Procurement Readiness Optimization-Advanced Casting Technology (PRO-ACT), Project 3			
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
New Program - will demonstrate readiness improvements by developing and applying innovative methods of designing, manufacturing and buying weapon systems spares through advanced casting technology.	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q

Exhibit R-2a, RDT&E Project Justification							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7				Project Name and Number - Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST), Project 4				
Cost ($ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project 4: Procurement Readiness Optimization-Forging Advanced System Technology	.999	1.112	1.210	1.245	1.261	1.296	1.321	1.343
RDT&E Articles Quantity- N/A								

A. Mission Description and Budget Item Justification:

Weapon system spare parts which use forgings are responsible for a disproportionate share of DLA backorders. Forged parts are 3% of National Stock Numbers (NSNs) but 6% of backorders. 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).

B. Accomplishments/Planned Program

	FY 06	FY 07	FY 08	FY 09
Accomplishment/ Effort/Subtotal Cost	.999	1.112	1.210	1.245
RDT&E Articles Quantity – N/A				

Forging Technology for Lead Time Reduction

FY 2006 Accomplishments: ($0.999)

- Value stream analysis of shop floor and acquisition processes – The Ohio State University – Continued development of Production Flow Analysis Simplification Toolkit for commercial rollout. Development focused on analyzing large datasets (multi routings). Issued 3 commercial licenses for Pro-Fast in 2006.
- Best practices for forging supplier selection and forging tooling database development – University of Toledo, MVTS, Information Handling Systems, and Plexus On Line – Increased the number of forging dies in the National Forging Tooling Database (NFTD) to over 200,000 dies representing over 70 forges in the country.
- Uploaded the United States Air Forces Landing Gear forging tooling data into the NFTD. Targeted other services and weapon systems for data uploads using the free Plexus Upload Tool.
- Deployed the FORGE-IT process in addressing forging technical and enterprise problems. Provided forging procurement assistance to DLA and DOD Services.
    - Rapid Forging Tooling – RSP Tooling Technology set out to "spray up tooling" leveraging Department of Energy developed technology.
    - Accomplishments include deploying the beta machine to build tools 7x7x4 inches up to 100 pounds.

Exhibit R-2a, RDT&E Project Justification							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7				Project Name and Number - Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST), Project 4				
Cost ($ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project 4: Procurement Readiness Optimization-Forging Advanced System Technology	.999	1.112	1.210	1.245	1.261	1.296	1.321	1.343
RDT&E Articles Quantity- N/A								

FY 2007 – 2009 Plans: Continue to develop technology for rapid, low cost deployment of forging technology.

C. Other Program Funding Summary: N/A

D. Acquisition Strategy: A Broad Agency Announcement (BAA) evaluations complete

E. Major Performers: N/A

Exhibit R-3, RDT&E Program Element/Project Cost Breakdown	Date: February 2007
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7	Project Name and Number - Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST), Project 4

A. Project Cost Breakdown

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

Project Cost Categories	FY 2006	FY 2007	FY 2008	FY 2009
a. Manufacturing Process Support Costs	.999	1.112	1.210	1.245

B. Budget Acquisition History and Planning Information

Performing Organizations

Contractor or Government Performing Activity	Contractor Method/Type Or Funding Vehicle	Award or Obligation Date	Performing Project Activity BAC	FY 2006	FY 2007	FY 2008	FY 2009	Budget to Complete	Total Program
AdvanTech, Inc	Contract	10/13/05	13.006	.999	1.112	1.210	1.245		

Government Furnished Property: None.

Exhibit R-4, Schedule Profile			Date: February 2007
Appropriation/Budget Activity RDT&E, Defense Wide BA: 7	Program Element Number and Name PE 0708011S Industrial Preparedness Manufacturing Technology	Project Name and Number - Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST), Project 4	

Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	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	1	2	3	4
Business Enterprise Integration	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																
"FORGE-IT" projects	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																
Forging R&D	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																
New Forging Program																	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Exhibit R-4a, Schedule Detail							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-Wide BA: 7	Program Element Number and Name PE 0708011S Industrial Preparedness Manufacturing Technology			Project Name and Number - Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST), Project 4				
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Business Enterprise Integration		1-4Q	1-4Q	1-4Q				
FORGE-IT Projects		1-4Q	1-4Q	1-4Q				
Forging R&D		1-4Q	1-4Q	1-4Q				
New Forging Program					1-4Q	1-4Q	1-4Q	1-4Q

Exhibit R-2a, RDT&E Project Justification							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7			Project Name and Number - Material Acquisition: Electronics (MAE), Project 5					
Cost ($ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project 5: Material Acquisition: Electronics	10.113	10.550	10.431	10.682	10.813	11.120	11.343	11.521
RDT&E Articles Quantity- N/A								

A. Mission Description and Budget Item Justification:

Develop a capability to emulate most obsolete digital integrated circuits (ICs) in the federal catalog using a single, flexible manufacturing line. DoD has estimated that $2.9 billion is spent every five years in redesigning circuit card assemblies. Much of these redesigns are driven by IC obsolescence. Commercial ICs have short Product Life Cycles (often available only 18 months), prior to moving on to the next generation of ICs.

DoD maintains weapons systems much longer, resulting in an obsolescence problem. In order to avoid the excess costs and potential readiness issues associated with buying excessive inventories before commercial availability ceases, or redesigning the next higher assembly to eliminate the obsolete part, DLA (as the manager of 88% of the IC supply class) must have a capability to manufacture IC devices. This project develops that capability and will expand to succeeding generations of obsolete ICs through the Advanced Microcircuit Emulation program. In the coming years we will also look at the need and feasibility of supporting other classes of obsolete electronics items (such as Circuit Card Assemblies, discrete electronic devices, etc.) managed by DLA in order to best serve our military customers.

B. Accomplishments/Planned Program

	FY 06	FY 07	FY 08	FY 09
Accomplishment/ Effort/Subtotal Cost	10.113	10.550	10.431	10.682
RDT&E Articles Quantity – N/A				

The Material Acquisition Electronics program continues to cover development and expansion of IC fabrication technology to emulate succeeding generations of discontinued or otherwise non available commercial technology. This includes integration of advanced emulation capability development (e.g., High Speed/ High Density Emulation Arrays) into Low Rate Initial Production capability. Recent shipments included microcircuit devices for C-17, F-15 aircraft, and Navy Phalanx ship board anti missile defense system components. Technology development will continue to deeper sub-micron (<1.0 um) feature sizes and faster operating speeds increasing warfighter support. Development of IC design capability and population of our design model library for efficient IC fabrication technology will continue to expand in order to accommodate both in-house and third-party (principally Original Equipment Manufacturer) design requirements. Continued development of IC characterization capability will enhance emulation from sample parts in cases where original design data is incomplete or not available at all; thus reducing non-procurables. In FY2007 a Broad Area Announcement will seek proposals to support other classes of obsolete electronics as well as IC's managed by DLA.

Exhibit R-2a, RDT&E Project Justification							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7			Project Name and Number - Material Acquisition: Electronics (MAE), Project 5					
Cost ($ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project 5: Material Acquisition: Electronics	10.113	10.550	10.431	10.682	10.813	11.120	11.343	11.521
RDT&E Articles Quantity- N/A								

C. Other Program Funding Summary: N/A

D. Acquisition Strategy: N/A

E. Major Performers: N/A

Exhibit R-3, RDT&E Program Element/Project Cost Breakdown	Date: February 2007
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7	Project Name and Number - Material Acquisition: Electronics (MAE), Project 5

A. Project Cost Breakdown

Material Acquisition: Electronics (MAE)

Project Cost Categories	FY 2006	FY 2007	FY 2008	FY 2009
a. Manufacturing Process Support Costs	10.113	10.550	10.431	10.682

B. Budget Acquisition History and Planning Information

Performing Organizations

Contractor or Government Performing Activity	Contractor Method/Type Or Funding Vehicle	Award or Obligation Date	Performing Project Activity BAC	FY 2006	FY 2007	FY 2008	FY 2009	Budget to Complete	Total Program
				10.113	10.550	10.431	10.682		
Sarnoff Corp.									
LMI									
ARINC									
SPAWARSYSCEN									

Government Furnished Property: None.

Exhibit R-4, Schedule Profile																																			
Date: February 2007																																			
Appropriation/Budget Activity RDT&E, Defense Wide BA: 7					Program Element Number and Name PE 0708011S Industrial Preparedness Manufacturing Technology																				Project Name and Number - Material Acquisition: Electronics (MAE), Project 5											
Fiscal Year	**2006**				**2007**				**2008**				**2009**				**2010**				**2011**				**2012**				**2013**			
	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**	**1**	**2**	**3**	**4**
Perform Gap Analysis (GA) of Commercial Technology.	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Perform Base array designs required to fill GA.	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Update design Library	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Develop prototypes for test and insertion.	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Develop Low Rate Initial Production (LRIP) capability.	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Transition new microcircuit designs to LRIP.	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Perform process review	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Plan required process improvements.	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Implement process improvements.	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Monitor and adjust process improvements.	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**

Exhibit R-4a, Schedule Detail							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-Wide BA: 7	Program Element Number and Name PE 0708011S Industrial Preparedness Manufacturing Technology				Project Name and Number - Material Acquisition: Electronics (MAE), Project 5			
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Perform Gap Analysis (GA)of Commercial Technology.	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Perform base array designs required to fill GA.	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Update design library.	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Develop prototypes for test and insertion.	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Develop Low Rate Initial Production (LRIP) capability	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Transition new microcircuit designs to LRIP	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Perform process review	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Plan required process improvements.	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Implement process improvements.	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Monitor and adjust process improvements	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q

Exhibit R-2a, RDT&E Project Justification							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7			Project Name and Number – Defense Microelectronics Activity (DMEA), Mfg Engineering of Spray Cooling, Project 6					
Cost ($ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project 6: Defense Microelectronics Activity, Mfg Engineering of Spray Cooling	4.190	0	0	0	0	0	0	0
RDT&E Articles Quantity- N/A								

A. Mission Description and Budget Item Justification

The Defense Microelectronics Activity **(**DMEA) mission is to leverage advanced technologies to extend the life of weapon systems, to solve operational problems (e.g., reliability and maintainability) and to address diminishing manufacturing sources. The DMEA provides technical and application engineering support for the implementation of advanced microelectronics research technologies from design through assembly and installation. The DMEA manages an organic capability to support these strategically important technologies within the DoD. These advanced technologies are translated into solutions for military needs. Spray Cooling Manufacturing Engineering efforts are to develop manufacturing engineering and process tools to support the Department's transition of spray cooling technology from laboratory prototypes to production and to implement advanced manufacturing, logistics, and sustainment philosophies to facilitate the successful deployment of advanced spray cooling technology components and products in weapon system platform applications.

B. Accomplishments/Planned Program

	FY 06	FY 07	FY 08	FY 09
Accomplishment/ Effort/Subtotal Cost	4.190	0	0	0
RDT&E Articles Quantity – N/A				

FY 2006 Plans: ($4.190)

- Developed a rapid prototyping capability for key manufacturing processes.
- Developed failure analysis closed-loop feedback architecture.
- Implemented strategic manufacturing partnerships necessary to establish a solid supplier base for all key system components.
- Developed the tools needed to support advanced logistics capabilities.
- Advanced a lean manufacturing initiative.
- Improve manufacturability and reliability of the spray cool systems and standard components.
- Continue to implement a quick-turn pilot line and process for seamless transition into low-cost volume manufacturing.
- Continue development of key manufacturing processes and engineering design tools needed for low cost, high volume fabrication and assembly.
- Develop an intelligent test capability for spray cooled electronics that provide qualified, war-ready, line replaceable units in sufficient quantities to meet field requirements for spray cool-equipped weapon systems.

Exhibit R-2a, RDT&E Project Justification							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7			Project Name and Number – Defense Microelectronics Activity (DMEA), Mfg Engineering of Spray Cooling,, Project 6					
Cost ($ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project 6: Defense Microelectronics Activity, Mfg Engineering of Spray Cooling,	4.190	0	0	0	0	0	0	0
RDT&E Articles Quantity- N/A								

- Develop tools, systems, and the service support capability needed to provide rapid, effective in-field and depot maintenance and the associated total asset visibility that ensures seamless life-cycle support to DoD.

C. Other Program Funding Summary: N/A

D. Acquisition Strategy: N/A

E. Major Performers: See R-3

Exhibit R-3, RDT&E Program Element/Project Cost Breakdown	Date: February 2007
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7	Project Name and Number – Defense Microelectronics Activity (DMEA), Mfg Engineering of Spray Cooling, Project 6

A. Project Cost Breakdown

Manufacturing Engineering of Spray Cooling

Project Cost Categories	FY 2006	FY 2007	FY 2008	FY 2009
a. Manufacturing Process Support Costs	4.190	0	0	0

B. Budget Acquisition History and Planning Information

Performing Organizations

Contractor or Government Performing Activity	Contractor Method/Type Or Funding Vehicle	Award or Obligation Date	Performing Project Activity BAC	FY 2006	FY 2007	FY 2008	FY 2009	Budget to Complete	Total Program
Isothermal Systems Research	CPFF	Sep 06		4.190	0	0	0		

Government Furnished Property: None.

Exhibit R-4, Schedule Profile																																Date: February 2007
Appropriation/Budget Activity RDT&E, Defense Wide BA: 7					Program Element Number and Name PE 0708011S Industrial Preparedness Manufacturing Technology																Project Name and Number – Defense Microelectronics Activity (DMEA), Mfg Engineering of Spray Cooling, Project 6																
Fiscal Year	**2006**				**2007**				**2008**				**2009**				**2010**				**2011**				**2012**				**2013**			
	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**	**1**	**2**	**3**	**4**
Rapid prototype capability	**x**	**x**	**x**	**x**																												
Failure analysis closed-loop feedback	**x**	**x**	**x**	**x**																												
Implement strategic manufacturing partnerships	**x**	**x**	**x**	**x**																												
Develop advanced logistics capabilities	**x**	**x**	**x**	**x**	**x**																											
Advance lean manufacturing initiative	**x**	**x**	**x**	**x**	**x**																											
Improve manufacturability and reliability					**x**	**x**	**x**	**x**	**x**	**x**																						
Implement quick-turn pilot line and process					**x**	**x**	**x**	**x**	**x**	**x**																						
Key mfg. processes and tools					**x**	**x**	**x**	**x**	**x**	**x**																						
Intelligent Test Capability					**x**	**x**	**x**	**x**	**x**	**x**																						
Tools for field and depot maintenance and support					**x**	**x**	**x**	**x**	**x**	**x**																						

Exhibit R-4a, Schedule Detail							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-Wide BA: 7	Program Element Number and Name PE 0708011S Industrial Preparedness Manufacturing Technology				Project Name and Number – Defense Microelectronics Activity (DMEA), Mfg Engineering of Spray Cooling, Project 6			
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Rapid prototype capability	1-4Q							
Failure analysis closed-loop feedback	1-4Q							
Implement strategic manufacturing partnerships	1-4Q							
Develop advanced logistics capabilities	1-4Q	1Q						
Advance lean manufacturing initiative	1-4Q	1Q						
Improve manufacturability and reliability		1-4Q	1-2Q					
Implement quick-turn pilot line and process		1-4Q	1-2Q					
Key mfg. processes and tools		1-4Q	1-2Q					
Intelligent Test Capability		1-4Q	1-2Q					

Exhibit R-2a, RDT&E Project Justification							Date: February 2007	
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7			Project Name and Number - Other Congressionally Added Programs (OCAs), Project 7					
Cost ($ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project 7: Other Congressionally Added Programs (OCAs)	12.518	14.894	0	0	0	0	0	0
RDT&E Articles Quantity- N/A								

Mission Description and Budget Item Justification:
This R2 is for all the Congressionally added programs to the DLA Manufacturing Technology Program.

B. Accomplishments/Planned Program

	FY 06	FY 07	FY 08	FY 09
Accomplishment/ Effort/Subtotal Cost	12.518	14.894	0	0
RDT&E Articles Quantity – N/A				

FY 2006 Accomplishments/Plans:

- **Defense Supply Chain Technology (DSC):** Improve the DOD supply chain through enhanced business processes and tools. Concurrent Technologies Corp, Awarded 05/06 ($6.406)
- **Advanced Manufacturing Technology (AMT):** Fund Purdue to develop the next generation of manufacturing technologies to reduce the cycle time and cost of providing replacement parts to DLA. Purdue University. Awarded 03/06 ($.986)
- **Castings for Improved Defense Readiness (CID):** Machining of castings for lead time reduction and on-time delivery; high performance steels, rapid casting design, casting procurement solution network. Awarded 04/06 ($.986)
- **Complex Optics and Nanometer Scale (CON):** Develop a full systems solution manufacturing capability to deterministically produce high performance optics and other precision surfaces needed for DoD. Awarded 03/06 ($1.972)
- **Copper-base Casting Technology Program (CBC):** Fund development and application of copper-base alloys to make lighter, more efficient components of DoD systems. Copper Development Association. Awarded 03/06 ($1.183)
- **Rapid Qualification of Mfg Parts (RQC):** Develop a process of intensive quenching of cannon and motor parts using water to replace oil as the quenching medium. Awarded 04/06 ($.985)

FY 2007 Plans:

- **Advanced Microcircuit Emulation Program:** ($1.345)
- Copper-Based Castings Technology Program: ($1.993)
- **Lithium Battery Systems for Asset Tracking:** ($1.793)
- **Next Generation Manufacturing Tech Initiative:** ($3.885)
- **Northwest Manufacturing Initiative:** ($2.491)
- **4 Ship Network Training Center**: ($1.943)
- **Joint Diminishing Manufacturing Capabilities**: ($1.445)

C. Other Program Funding Summary: N/A

D. Acquisition Strategy: Funds are provided to executing agencies and placed on existing contracts with the intended recipient of the Congressional Addition.

E. Major Performers: See information associated with each project provided under 2006 Plans.

Exhibit R-3, RDT&E Program Element/Project Cost Breakdown	Date: February 2007
Appropriation/Budget Activity RDT&E, Defense-wide BA: 7	Project Name and Number - Other Congressionally Added Programs (OCAs), Project 7

A. Project Cost Breakdown

Other Congressionally Added Programs (OCAs)

Project Cost Categories	FY 2006	FY 2007	FY 2008	FY 2009
a. Manufacturing Process Support Costs	12.518	14.894	0	0

B. Budget Acquisition History and Planning Information

Performing Organizations

Contractor or Government Performing Activity	Contractor Method/Type Or Funding Vehicle	Award or Obligation Date	Performing Project Activity BAC	FY 2006	FY 2007	FY 2008	FY 2009	Budget to Complete	Total Program
TBD				12.518	14.894	0	0		

Government Furnished Property: None.