Department of Defense
Fiscal Year (FY) 2011 President's Budget

February 2010

Defense Logistics Agency

Justification Book

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

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Defense Logistics Agency
FY 2011 President's Budget
Exhibit R-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request
(Dollars in Thousands)

Appropriation: 0400D Research, Development, Test & Eval, DW

Date: 21 Jan 2010

Line No	Program Element Number	Item	Act	FY 2009 (Base & OCO)	FY 2010 Base & OCO Enacted	FY 2010 Supplemental Request	FY 2010 Total	FY 2011 Base	FY 2011 OCO	FY 2011 Total Request	Sec
31	0603264S	Agile Transportation for the 21st Century (AT21) - Theater Capability	03					750		750	U
44	0603712S	Generic Logistics R&D Technology Demonstrations	03	72,541	51,851		51,851	20,542		20,542	U
45	0603713S	Deployment and Distribution Enterprise Technology	03	28,414	29,203		29,203	29,109		29,109	U
47	0603720S	Microelectronics Technology Development and Support	03	36,392	70,597		70,597	26,878		26,878	U
60	0603805S	Dual Use Technology	03	4,000							U
Advanced Technology Development (ATD)				141,347	151,651		151,651	77,279		77,279	
154	0605502S	Small Business Innovative Research	06	3,230							U
RDT&E Management Support				3,230							
182	0607713S	Deployment and Distribution Enterprise Technology	07	733							U
245	0708011S	Industrial Preparedness	07	53,040	46,271		46,271	21,798		21,798	U
246	0708012S	Logistics Support Activities	07	2,683	2,783		2,783	2,813		2,813	U
Operational Systems Development				56,456	49,054		49,054	24,611		24,611	
Total Defense Logistics Agency				201,033	200,705		200,705	101,890		101,890	

Exhibit R-1G: FY 2011 President's Budget (Published), as of January 21, 2010 at 11:53:20

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Program Element Table of Contents (by Budget Activity then Line Item Number)

Budget Activity 03: Advanced Technology Development (ATD)

Budget Activity 06: RDT&E Management Support

Budget Activity 07: Operational Systems Development

Program Element Table of Contents (Alphabetically by Program Element Title)

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ACRONYM LISTING

2D - TWO DIMENSIONAL
3D - THREE DIMENSIONAL
AC - ADVANCED CONCEPT
ACTD - ADVANCED CONCEPT TECHNOLOGY DEMONSTRATION
ADMITT - ADVANCED DOMESTIC MASK INSPECTION TOOLS AND TECHNOLOGY
ADS - ATLANTIC DIVING SUPPLY
AED - ALTERNATE ENERGY DEVELOPMENT
AFE - ALTERNATIVE FUEL ENGINE
AFIT - AIR FORCE INSTITUTE OF TECHNOLOGY
AFRL - AIR FORCE RESEARCH LAB
AIDC - AUTOMATED INFORMATION AND DATA COLLECTION
AIN - ALUMINUM NITRADE
ALD - ATOMIC LAYER DEPOSITION
AMCOM - ARMY MATERIAL COMMAND
AMRAMM- ADVANCED MEDIUM RANGE AIR TO AIR MISSLE
AMS - AEROSPACE MATERIAL SPECIFICATION
ARMS - ADVANCED RECONFIGURABLE MANUFACTURING OF SEMICONDUCTORS
ASIC - APPLICATION SPECIFIC INTEGRATED CIRCUIT
AT21 - AGILE TRANSPORTATION FOR THE 21ST CENTURY
ATSP3 - ADVANCED TECHNOLOGY SUPPORT PROGRAM III
AV - ASSET VISIBILITY
AWACS - AIRBORNE WARNING AND CONTROL STATION
BAA - BROAD AGENCY ANNOUNCEMENT
BATTNET - BATTERY NETWORK
BSCM - BEAM STEERING CONTROL MODULE
BST - BARIUM STRONTIUM TITANATE
C - CENTIGRADE
C&T - CLOTHING AND TEXTILES
C2 - COMMAND AND CONTROL
CAGE - COMMERCIAL AND GOVERNMENT ENTITY CODE
CBCT - COOPER BASED CASTING TECHNOLOGY APPLICATIONS
CCS - CARBON CAPTURE AND SEQUESTRATION
CDCIE - CROSS DOMAIN COLLABORATIVE INFO ENVIRONMENT
CDUM - CUSTOMER DRIVEN UNIFORM MANUFACTURING
CG(X) - NEXT GENERATION CRUISER
CIE - CLOTHING AND INDIVIDUAL EQUIPMENT
CIF - CENTRAL ISSUE FACILITY
CIW - COLABORATIVE INFO WORKSPACE
CMOS - COMPLEMENTARY METAL OXIDE SEMICONDUCTORS
CMS - COALITION MOBLITY SYSTEM
CMS - CONGRESSIONALLY MANDATED STUDY
COEX - COMMUNITY OF EXCHANGE
CONOPS - CONCEPT OF OPERATIONS
CONUS - CONTINENTAL UNITED STATES
COP - COMMON OPERATIONAL PICTURE
CORANET - COMBAT RATIONS NETWORK FOR TECHNOLOGY IMPLEMENTATION
COS - COMMERCIAL OFF THE SHELF
CPFF - COST PLUS FIXED-FREE
CPOF - COMMAND POST OF THE FUTURE
CRADA - COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT
CSL - CATALST SUPPORT LAYER
CWB - COLD WEATHER BIODIESEL
D2 - DEPLOYMENT AND DISTRIBUTION
DC - DIRECT CURRENT
DCSC - DEFENSE SUPPLY CENTER COLUMBUS
DCSP - DEFENSE SUPPLY CENTER PHILADELPHIA
DCSR - DEFENSE SUPPLY CENTER RICHMOND
DDOC - DEPLOYMENT DISTRIBUTION OPERATIONS CENTER
DDR&E - DIRECTOR, DEFENSE RESEARCH & ENGINEERING
DDXX - DEPLOYABLE DISTRIBUTION CENTER
DESC - DEFENSE ENERGY SUPPORT CENTER
DHS - DEPARTMENT OF HOMELAND SECURITY
DLA - DEFENSE LOGISTICS AGENCY

DLIR - DEFENSE LOGISTICS INFORMATION RESEARCH
DLIS - DEFENSE LOGISTICS INFORMATION SERVICE
DMEA - DEFENSE MICROELECTRONICS ACTIVITY
DMFC - DIRECT METHANOL FUEL CELL
DMLSS-W - DEFENSE MEDICAL LOGISTICS STANDARD SUPPORT BLANKET PURCHASE AGREEMENT
DMLT - DEFENSE MEDICAL LOGISTICS TRANSFORMATION
DMSMS - DIMINISHING MANUFACTURING SOURCE AND MATERIAL SHORTAGE
DoD - DEPARTMENT OF DEFENSE
DOE - DESIGN OF EXPERIMENT
DORRA - DEFENSE LOGISTICS AGENCY OFFICE OF OPERATIONS RESEARCH AND RESOURCE ANALYSIS
DP - DYNAMIC PARTNERING
DPNM - DISTRIBUTION PROCESS NODAL MODEL
DOP - DISTRIBUTION PROCESS OWNER
DR - DISASTER RELIEF
DRMS - DEFENSE REUTILIZATION AND MARKETING SERVICE
DUSD - DEPUTY UNDER SECRETARY OF DEFENSE
EA - EXECUTIVE AGENT
EMALL - ELECTRONIC MALL
EML - EXPEDITIONARY MEDICAL LOGISTICS
EO - ELECTRO-OPTIC
EPA - ENERGY POLICY ACT
ERP - ENERGY READINESS PROGRAM
ESA - ENGINEERING SUPPORT ACTIVITES
EUVL - EXTREME ULTRAVIOLET LITHOGRAPHY
FAME - FATTY ACID METHYL ESTER
FBAR - FILM BULK ACOUSTIC RESONATOR
FC - FUEL CELL
FCC - FAME CROSS CONTAMINATION
FDA - FOOD AND DRUG ADMINISTRATION
FFRDC- Federally Funded Research and Development Center
FIB - FOCUSED ION BEAM
FLIS - FEDERAL LOGISTICS INFORMATION SYSTEM
FOB - FORWARD OPERATING BASE
FSG - FEDERATED SOFTWARE GROUP
FTE - FULL TIME EQUIVALENT
GA - GAP ANALYSIS
GaAs - GALLIUM ARSENIDE
GaN - GALLIUM NITRIDE
GDE - GAS DIFFUSION ELECTRODE
GFP - GOVERNMENT FURNISHED PROPERTY
GIDEP - GOVERNMENT INDUSTRY DATA EXCHANGE PROGRAM
GIS - GEOGRAPHIC INFORMATION SYSTEM
GITI - GLOBAL INFOTEK, INCORPORATED
GPS - GOLBAL POSITIONING SYSTEM
HA - HUMANITARIAN ASSISTANCE
HPA - HIGH POWER AMPLIFIER
IC - INTEGRATED CIRCUITS
ICU-FST - IMPROVED COLLAPSIBLE URETHANE FUEL STORAGE TANKS
IDIQ - INDEFINITE DELIVERY INDEFINITE QUANTITY
InAIN - IDIUM ALUMINUM NITRIDE
InGaN - INDIUM GALLIUM NITRIDE
IP - INDUSTRIAL POLICY
IP Man Tech - INDUSTRIAL PREPAREDNESS MANUFACTURING TECHNOLOGY
IR - INFARED
ISO - INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
IT - INFORMATION TECHNOLOGY
ITV - IN TRANSIT VISIBILITY
JAIT - JOINT AUTOMATIC IDENTIFICATION TECHNOLOGY
JCIDS - JOINT CAPABILITY INTEGRATED DEVELOMPMENT SYSTEM
JCTD - JOINT CAPABILITY TECHNOLOGY DEMONSTRATION
JDDE - JOINT DEPLOYMENT AND DISTRIBUTION ENTERPRISE
JDMTP - JOINT DEFENSE MANUFACTURING TECHNOLOGY PANEL
JFCOM - JOINT FORCES COMMAND
JMIDS - JOINT MODULAR INTERMODAL DISTRIBUTION SYSTEM
JP-8 - JET PROPULSION FUEL
JPADS - JOINT PRECISION AIR DROP

JRADS - JOINT RECOVERY AND DISTRIBUTION SYSTEM
JTRS - JOINT TACTICAL RADIO SYSTEM
KIFC - KANSAS INTELLIGENCE FUSION CENTER
KPP - KEY PERFORMANCE PARAMETERS
L&MR - LOGISTICS & MATERIAL READINESS
LAV - LIGHT ARMORED VEHICLE
LIA - LOGISTICS INFO AGENCY
LIRC - LOGISTICS INFORMATION REVIEW CONCEPT
LMI - LOGISTICS MANAGEMENT INSTITUTE
LRIP - LOW RATE INITIAL PRODUCTION
MAE - MATERIAL ACQUSITION ELECTRONICS
MATTS - MARINE ASSET TAGGING AND TRACKING SYSTEM
MBE - MOLECULAR BEAM EPITAXY
MCCD - MARINE CORPS COMBAT DEVELOPMENT COMMAND
MCM - MULTI CHIP MODULES
MEA - MEMBRANE ELECTRODE ASSEMBLY
MEMS - MICRO ELECTRO MECHANICAL SYSTEM
MILSPEC - MILITARY SPECIFICATION
MLG - MAIN LANDING GEAR
MLL - MASK LESS LITHOGRAPHY
MLN - MEDICAL LOGISTICS NETWORK
mm - MILLIMETER
MMIC - MONOLITHIC MICROWAVE INTEGRATED CIRCUITS
MMPDS - METALLIC MATERIALS PROPERTIES DEVELOPMENT AND STANDARDIZATION
MOCVD - METAL ORGANIC CHEMICAL VAPOR DEPOSITION
MPO - METAL PROCESS OPTIMIZATION
MRAM - MAGNETIC RANDOM ACCESS MEMORY
MRE - MEALS READY TO EAT
MRL - MANUFACTURING READINESS LEAVELS
MTBF - MEAN TIME BETWEEN FAILURE
NAVSEA - NAVAL SEA SYSTEMS COMMAND
NDAA - NATIONAL DEFENSE AUTHORIZATION ACT
NFTD - NATIONAL FORGING TOOLING DATABASE
NII - NETCENTRIC INFRASTRUCTURE AND IMPLEMENTATION
NIL - NANO IMPRINT LITHOGRAPHY
NLG - NOSE LANDING GEAR
nm - NANOMETER
NoMaDD - NODE MANAGEMENT AND DEPLOYABLE DEPOT
NRL - NAVAL RESEARCH LAB
NSA - NATIONAL SECURITY AGENCY
NSN - NATIONAL STOCK NUMBER
O&M - OPERATION AND MAINTENANCE
OCA - OTHER CONGRESSIONAL ADDS
OCO - OVERSEAS CONTINGENCY OPERATIONS
ODUSD - OFFICE OF THE DEPUTY UNDERSECRETARY OF DEFENSE
ONR - OFFICE OF NAVAL RESEARCH
OPNAV - OPEARTIONAL NAVY (OFFICE OF THE CHIEF OF NAVAL OPERATIONS)
ORTA - OFFICE OF RESEARCH AND TECHNOLOGY APPLICATIONS
PACOM - PACIFIC COMMAND
PAO - PUBILC AFFAIRS OFFICER
PDIT - PRODUCT DATA INTEGRATION TECHNOLOGIES
PDK - PORTABLE DEPLOYMENT KIT
PDW - PROCUREMENT, DEFENSE WIDE
PM - PROGRAM MANAGER
PMO - PROGRAM MANAGEMENT OFFICE
PPI - PLANNED POSITION INDICATION
PrCB - PRINTED CIRCUIT BOARD
PROACT - PROCUREMENT READINESS OPTIMIZATION-ADVANCED CASTING TECHNOLOGY
PROFAST - PROCUREMENT READINESS OPTIMIZATION-FORGING ADVANCE SYSTEM TECHNOLOGY
Pt - PLATINUM
PV - PRIME VENDOR
QN - QUALITY NOTICE
R&D - RESEARCH AND DEVELOPMENT
R2Q - RP2 QUALIFICATION (ROCKET KEROSENE)
R3 - REUTILIZATION RISK REDUCTION
RDCIC - REGIONAL DEFENSE COMMAND INTEGRATION CENTER

RDT&E - RESEARCH, DEVELOPMENT, TEST & EVALUTATION
RF - RADIO FREQUENCY
RFID - RADIO FREQUENCY IDENTIFICATION DEVICE
RM - REFORMED METHANOL
ROI - RETURN ON INVESTMENT
SAPCO - SPECIAL ACCESS PROGRAMS COORDINATION OFFICE
SAR - SYNTHETIC APERTURE RADAR
SAW - SURFACE ACOUSTIC WAVE
SBIR - SMALL BUSINESS INNOVATIVE RESEARCH
SCM - SUPPY CHAIN MANAGEMENT
SDR - STRATEGIC DISTRIBUTION & REUTILIZATION
SDR - SUPPLY DISCREPANCY REPORT
SDVOSB - SERVICE DISABLED VETERAN OWNED BUSINESS
SHS - SELF PROPAGATING HIGH TEMPERATURE SYNTHESIS
SiC - SILICON CARBIDE
SLPC - SINGLE LOAD PLANNING CAPABILITY
SME - SUBJECT MATTER EXPERT
SRD - SYSTEM REQUIREMENTS DOCUMENT
SSO - SINGLE SIGN ON
STO - STOCK TRANSPORT ORDER
STP - SHORT TERM PROJECT
SWNT - SINGLE WALLED CARBON NANOTUBE
T/R - TRANSMIT/RECEIVE
TAG - THE ADJUGENT GENERAL
TARDEC - THE UNITED STATES ARMY TANK AUTOMOTIVE RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
TAV - TOTAL ASSET VISIBILITY
TDP - TECHNICAL DATA PACKAGE
TEES (TAMU) - TEXAS ENGINEERING EXPERIMENT STATIONS (TEXAS A&M UNIVERSITY)
TENTNET - TENT NETWORK FOR TECHNOLOGY IMPLEMENTATION
TQ - TECHNICAL QUALITY
TRL - TECHNOLOGY READINESS LEVEL
TSA - THERMAL STABILITY ADDITIVES
TTN - TRANSPORTATION TRACKING NUMBER
TWMS - TIMEWISE MANAGEMENT SYSTEMS
TWT - TRAVELING WAVE TUBES
UAV - UNMANNED AERIAL VEHICLE
URG - UNITIZED GROUP RATIONS
um - MICRO MILLIMETER
US - UNITED STATES
USDA - UNITED STATES DEPARTMENT OF AGRICULTURE
USMC - UNITED STATES MARINE CORPS
USP - UNITED STATES PHARMACOPIA
USTRANSCOM - UNITED STATES TRANSPORTATION COMMAND
VED - VIRTUAL ENTERPRISE DEVELOPMENT
VHP - VEHICLE FUEL CELL AND HYDROGEN LOGISTICS PROGRAM
VINS - VET BIZ INITIATIVE FOR NATIONAL SUSTAINMENT
WSS - WEAPON SYSTEM SUSTAINMENT
XML - EXTENSABLE MARKUP LANGUAGE

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency	DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603264S: *Agile Transportation for the 21st Century (AT21) Theater Capability*

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.750	0.000	0.750	1.000	1.000	1.000	1.000	Continuing	Continuing
1: *Agile Transportation for the 21st Century (AT21) Theater Capability*	0.000	0.000	0.750	0.000	0.750	1.000	1.000	1.000	1.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Geographic Combatant Commanders (GCCs) lack an automated capability to (1.) manage transportation planning and execution processes for cargo and passenger movement within their respective theaters of operation or (2.) match global movement requirements against available lift assets to produce an optimized transportation schedule that meets delivery requirements. AT21 Increment 3 Theater Capability will provide continuous visibility, collaboration, automated processes, alerts and an exception management capability supporting transportation planning and execution for theater force and sustainment movements. When fully implemented, it will provide opportunities to streamline cargo movement by optimizing capacity and provide complete visibility by synchronizing theater movements with strategic movements.

B. Program Change Summary ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	0.750	0.000	0.750
Total Adjustments	0.000	0.000	0.750	0.000	0.750
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• FY 2011 Other Program Changes	0.000	0.000	0.750	0.000	0.750

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603264S: *Agile Transportation for the 21st Century (AT21) Theater Capability*	PROJECT 1: *Agile Transportation for the 21st Century (AT21) Theater Capability*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
1: *Agile Transportation for the 21st Century (AT21) Theater Capability*	0.000	0.000	0.750	0.000	0.750	1.000	1.000	1.000	1.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Geographic Combatant Commanders (GCCs) lack an automated capability to (1.) manage transportation planning and execution processes for cargo and passenger movement within their respective theaters of operation or (2.) match global movement requirements against available lift assets to produce an optimized transportation schedule that meets delivery requirements. AT21 Increment 3 Theater Capability will provide continuous visibility, collaboration, automated processes, alerts and an exception management capability supporting transportation planning and execution for theater force and sustainment movements. When fully implemented, it will provide opportunities to streamline cargo movement by optimizing capacity and provide complete visibility by synchronizing theater movements with strategic movements.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Agile Transportation for the 21st Century (AT21) Theater Capability	0.000	0.000	0.750	0.000	0.750
FY 2009 Accomplishments: .					
FY 2011 Base Plans: Perform collaboration and analysis effort with selected COCOMs to scope initial process improvement and optimization efforts for targeted theater of operation. Demonstrate proof of concept.					
Accomplishments/Planned Programs Subtotals	0.000	0.000	0.750	0.000	0.750

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603264S: *Agile Transportation for the 21st Century (AT21) Theater Capability*	**PROJECT** 1: *Agile Transportation for the 21st Century (AT21) Theater Capability*

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Milestone B decisions for Increment 3 is planned in FY 2011 with acquisition strategy included in Milestone B activities.

E. Performance Metrics

Critical enterprise-level transportation management and execution capabilities to improve performance in theater transportation planning and execution operations in support of broader Joint Deployment Distribution Enterprise (JDDE) improvements being implemented in the larger AT21 program.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*				R-1 ITEM NOMENCLATURE PE 0603712S: *Logistics Research and Development Technology (Log R&D)*							
COST ($ in Millions)	**FY 2009 Actual**	**FY 2010 Estimate**	**FY 2011 Base Estimate**	**FY 2011 OCO Estimate**	**FY 2011 Total Estimate**	**FY 2012 Estimate**	**FY 2013 Estimate**	**FY 2014 Estimate**	**FY 2015 Estimate**	**Cost To Complete**	**Total Cost**
Total Program Element	72.541	51.851	20.542	0.000	20.542	20.933	21.143	21.555	21.840	Continuing	Continuing
1: *Medical Logistics Network (MLN)*	2.864	2.628	2.837	0.000	2.837	2.880	2.920	2.970	3.020	Continuing	Continuing
2: *Weapon System Sustainment (WSS)*	5.400	5.214	5.637	0.000	5.637	5.729	5.804	5.903	6.005	Continuing	Continuing
3: *Supply Chain Management (SCM)*	3.067	2.660	3.005	0.000	3.005	3.108	3.080	3.201	3.189	Continuing	Continuing
4: *Strategic Distribution & Reutilization (SDR)*	3.440	3.309	3.601	0.000	3.601	3.684	3.750	3.815	3.881	Continuing	Continuing
5: *Energy Readiness Program (ERP)*	1.691	2.016	2.179	0.000	2.179	2.215	2.243	2.282	2.322	Continuing	Continuing
6 : *Defense Logistics Information Research (DLIR)*	0.271	2.135	2.304	0.000	2.304	2.341	2.373	2.414	2.456	Continuing	Continuing
7: *Tent Network for Technology Implementation (TENTNET)*	0.000	0.982	0.979	0.000	0.979	0.976	0.973	0.970	0.967	Continuing	Continuing
8: *Other Congressional Adds (OCAs)*	55.808	32.907	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The central idea of the Focused Logistics Joint Functional Concept "is to build sufficient capacity into the sustainment pipeline, exercise sufficient control over the pipeline from end to end, and provide a high degree of certainty to the supported joint force commander that sustainment, and support will arrive where needed and on time." The Defense Logistics Agency (DLA) Research and Development (R&D) program helps achieve this vision by pioneering advanced logistics concepts and business processes that provides the leanest possible infrastructure, the use of the best commercial and government sources, and the application of business practices. The Logistics R&D program develops and demonstrates high risk, high payoff technology that will provide a significantly higher level of support at lower costs, than would be otherwise attainable. The program has a proven track record of implementation and benefits. One example is the Department of Defense (DoD)

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency	DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603712S: *Logistics Research and Development Technology (Log R&D)*

Electronic MALL (EMALL). DoD EMALL was the first web based, distributed architecture on-line ordering capability. It has been adopted by the Army, Navy and the Department of Homeland Security. DLA's overall Log R&D program has demonstrated positive net present value and a positive return on investment.

B. Program Change Summary ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	76.135	19.043	0.000	0.000	0.000
Current President's Budget	72.541	51.851	20.542	0.000	20.542
Total Adjustments	-3.594	32.808	20.542	0.000	20.542
• Congressional General Reductions		-0.173			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		33.080			
• Congressional Directed Transfers		0.000			
• Reprogrammings	-1.004	0.000			
• SBIR/STTR Transfer	-2.590	0.000			
• FY 2011 Other Program Changes	0.000	0.000	20.542	0.000	20.542
• FY 2010 Economic Assumptions	0.000	-0.008	0.000	0.000	0.000
• FY 2010 Federally Funded and Development Center Reduction	0.000	-0.091	0.000	0.000	0.000

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2009	FY 2010
Project: 8: *Other Congressional Adds (OCAs)*		
Congressional Add: *Advanced Mobile Microgrid*	2.713	0.000
Congressional Add: *Aging Systems Sustainment and Enabling*	1.995	2.387
Congressional Add: *Alternative Energy from Organic Sources*	5.984	5.969
Congressional Add: *Biofuels Program*	1.596	1.592
Congressional Add: *Commodity Management System Consolidation*	1.596	1.592
Congressional Add: *Connectory Expansion for Rapid Identification of Technology Sources for DoD*	0.399	0.000
	3.191	3.183

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency	DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603712S: *Logistics Research and Development Technology (Log R&D)*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2009	FY 2010
Congressional Add: *Continuous Acqusition and Lifecycle and Integrated Data Environment and Defense Logistics Enterprise Services Program*		
Congressional Add: *Defense Fuelcell Locomotive*	1.995	2.387
Congressional Add: *Emerging Critical Interconnection Technology*	1.995	0.000
Congressional Add: *Energy Strategy for the Department of Defense*	19.943	0.000
Congressional Add: *Florida Defense Manufacturing Supply*	1.995	0.000
Congressional Add: *High Pressure Mobile Water Delivery System*	0.000	0.000
Congressional Add: *New England Defense Manufacturing Supply Chain Institute*	0.798	0.000
Congressional Add: *On-Site Alternative Fuel Manufacturing System*	1.197	0.000
Congressional Add: *Reliability Testing of Lead Free Circular Components*	1.436	0.000
Congressional Add: *Smart Modular Regenerative Off-Grid Hydrogen Fuel Cell*	0.997	0.000
Congressional Add: *Vehicle Fuel Cell and Hydrogen Logistics Program*	7.978	6.366
Congressional Add: *Progressive Research for Sustainable Manufacturing*	0.000	1.194
Congressional Add: *Reduced Cost Supply Readiness*	0.000	1.194
Congressional Add: *Cellulosic-Derivied Biofuels Research*	0.000	2.387
Congressional Add: *Fuel Cell Hybrid Battery Manufacturing for Defense Operations*	0.000	0.796
Congressional Add: *Next Generation Manufacturing Technologies Initiative*	0.000	1.592
Congressional Add: *Woody Biomass Converison for JP-8 Fuel*	0.000	1.273
Congressional Add: *Radio Frequency Identification Technologies*	0.000	0.995
Congressional Add Subtotals for Project: 8	55.808	32.907
Congressional Add Totals for all Projects	55.808	32.907

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency	DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603712S: *Logistics Research and Development Technology (Log R&D)*

Change Summary Explanation

FY 2009 Economic Assumptions: $.206M

FY 2009 Reprogram High Pressure Mobile Water Delivery System to the United States Army Tank Automotive Research, Development, and Engineering Center (TARDEC): $.798M.

FY 2010 Total Economic Assumptions: $.022M

FY 2010 Total Federally Funded Research and Development Center Reduction: $.250M

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603712S: *Logistics Research and Development Technology (Log R&D)*	PROJECT 1: *Medical Logistics Network (MLN)*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
1: *Medical Logistics Network (MLN)*	2.864	2.628	2.837	0.000	2.837	2.880	2.920	2.970	3.020	Continuing	Continuing

A. Mission Description and Budget Item Justification

Defense Medical Logistics Transformation (DMLT) provides a comprehensive, standardized, unified, and policy compliant enterprise architecture, plan and implementation of initiatives to further unify the Medical Logistics Enterprise. The medical logistics community requires a multi-organizational, multi-disciplinary approach to future healthcare supply that spans the military services, the Office of the Secretary of Defense, our coalition partners, and commercial industry and involves diverse, yet complimentary functional disciplines such as cost estimating/financial management, system architecture and design, functional process mapping, transportation, telecommunication, networking, program management, contracting, engineering, and supply chain management.

Netcentric Infrastructure and Implementation (NII) The Netcentric Infrastructure and Implementation initiative will provide DoD Medical enterprise with a .NET web service provisioning framework based on Service-Oriented Architecture. A services-based information environment extends effectively to the outer reaches of the network, and allows the timely exchange of data among the various business systems and databases in an efficient and effective manner. Authoritative data sources distributed throughout the Enterprise can be leveraged, and unnecessary replication of data repositories will be reduced. Data services will reach a broader customer base compared to current technical solutions because data access will no longer be limited to the capabilities that are under direct command; rather, the partnering systems will benefit from a global, trusted, and reliable network. Adherence to the guidelines of Netcentric Operations will limit ad hoc design, discourage stove-pipe development, and reduce the development lifecycle. Metrics will provide feedback on value added and support the identification of further enhancement of this capability.

Controlled Room Temperature Cold Chain Packaging Protocol Development: DLA purchases a large variety of pharmaceutical products requiring special environmental handling from distributor to the battlefield. This project developed a pilot protocol to control packaging and shipping conditions for these medical items. Examples of these products are Tami Flu and Nerve Agent Antidote Auto-Injectors. These procedures will ensure that medical items reach the Warfighter in useable condition.

B. Accomplishments/Planned Program ($ in Millions)

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Medical Logistics Network Accomplishments/Plans	2.864	2.628	2.837	0.000	2.837
FY 2009 Accomplishments: DMLT: The benefits of the DMLT project impact the enterprise at four key levels: 1.) portfolio investment management 2.) requirements management 3.) legacy system integration and 4.) data duplication. As-is and to-be architectures developed as part of the DMLT project provide clear identification of current IT system functionalities and process standardization opportunities, enabling senior executives to avoid duplicative software development and target investment to the specific system or composite application that fulfills the enterprise need at least cost. The enterprise architecture tools and methodologies established by the DMLT project ensure far more rigorous definition, specification and traceability of requirements as well as development of more effective test scenarios to verify that delivered software solutions fulfill the complete requirements as funded. By facilitating more rigorous data and process definition, the DMLT project enables more informed development of web services linking data between legacy systems and composite applications. As a result, re-use of services will decrease development costs and new capabilities can be fielded without major investments in modification of legacy software or duplication of existing databases. This also reduces the cost of maintaining unnecessarily duplicative data in synchronization. Documented internal and external DMLSS information exchange relationships. Phase 1 foundational document for managing enterprise systems evolution. DMLT developed the DML Enterprise Architecture, which includes the Systems Interface Description (SV-1). This artifact is used to gain visibility to and manage, system interfaces. Significant progress moving DML culture towards evidence-based management. Supporting process, tools, and artifacts are required to institutionalize this thinking. Improved customer support depends on DML ability to quantitatively manage its enterprise with a vision of optimizing at the process level. The enterprise architecture gives the stakeholders a tool to manage their processes and communicate their requirements through structured architecture models. Used Enterprise Architecture methodology and tools to support the joint identification and development of Prime Vendor (PV) Generation IV Contract medical / surgical business requirements to support systems planning and execution.					

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Netcentric Infrastructure and Implementation (NII): Completed initial development of Netcentric Framework Infrastructure to provide DoD Medical enterprise with a .NET web service provisioning framework based on Service-Oriented Architecture. This initiative supports the timely exchange of data among the various business systems and databases in an efficient and effective manner throughout the outer reaches of the network. Expanded Web services framework to development of two web services that can be utilized by DSCP internal Medical IT applications. Controlled Room Temperature Cold Chain Packaging Protocol Development: Completed development and validation of packaging protocol for frozen materials that are within the FDA-defined range of -25 to -10 degrees C. Currently, DLA Cold Chain Packaging locations only have the option to maintain frozen materials for shipment at Dry Ice temperatures (-80 degrees C), which is frequently too cold for many items due to physical structure weaknesses. This protocol allows DLA to use an FDA/United States Pharmacopeia (USP) compliant packaging protocol to move ALL temperature sensitive materials within DLA supply chains. Initiated 3rd party testing of controlled temperature protocols for two specific temperature ranges. Results will verify contractor design and allow transition to production of new protocols. *FY 2010 Plans:* DMLT: Develop a collaborative acquisition planning process for medical items GEN IV development process is using a combination of Contracting, Medical Logistics Functional experts and DMLSS R&W system experts to define business process and identify system change opportunities to effectively implement the GEN IV Med/Surg Prime Vendor follow on contract to GEN III. Additionally, DMLT will pursue Expeditionary Medical Logistics (EML) as a subspiral effort. EML will identify and/or develop the 'to-be' capabilities and processes required to prepare for, transition to, and sustain Health Readiness support for expeditionary operations, addressing identified gaps and 'lessons learned' in order to achieve seamless and responsive support to expeditionary medical requirements. The EML sub-spiral will incorporate functional processes identified in DML mission threads into a collaborative					

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
operational framework to plan, prepare, project and provide operational medical logistics support. It will include the development of architecture artifacts and identify functional solutions for further validation through doctrine, organization, training, leadership and education, personnel and facilities (DOTLMS-PF) assessment and JCIDS, as appropriate to enable Operations planning, Acquisition, Deployment, Sustainment, Disposition, and Data resources supporting expeditionary operations. Netcentric Infrastructure and Implementation (NII): Expand external customer web services' pilots to full production Service Oriented Architecture features. Enhance initial web services framework to fully integrate standard repeatable web services and streamline development and fielding procedures. *FY 2011 Base Plans:* DMLT and Netcentric activity TBD based on FY 2010 accomplishments.					
Accomplishments/Planned Programs Subtotals	2.864	2.628	2.837	0.000	2.837

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

DMLT: Currently in last option. New work will be competitively bid on Defense Logistics Standard Support Blanket Purchase Agreement (DMLSS-W BPA).

E. Performance Metrics

DMLT: 1.) Eighty seven percent of Gen IV Requirements are supported by Arch Products. Documented the business processes that allowed both the vendor and the government to fully understand the business needs supporting the developed statement of work and clarified the contract requirements to minimize future changes to the contract. This also supports the functional requirements for future development of systems. 2.) Measurement of the progress of compliance of mandated Executive Agent (EA) usage within the DML Enterprise. The Clinger-Cohen Act and various other laws and regulations require complete enterprise architecture. 3.) Percentage alignment between Balanced Scorecard Transformation Initiatives and Enterprise Architecture

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COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
2: *Weapon System Sustainment (WSS)*	5.400	5.214	5.637	0.000	5.637	5.729	5.804	5.903	6.005	Continuing	Continuing

A. Mission Description and Budget Item Justification

Support Defense Logistics Agency (DLA) Strategic Plans Goals 1.) Warfighter Support) and 2.) Internal Process. The program spans multiple weapon systems and supply chains to improve internal processes, provide new methods, reduce costs and lead times, and ultimately, improve readiness for DLA customers.

The program is focused in three initiatives:
1.) Planning Process Improvement: The program improves elements of current inventory policy models, assesses potential benefits of new technologies and seeks more efficient approaches to deliver customer requirements while reducing inventory and order fulfillment costs. 2.) Technical/Quality Process Improvement: The program improves internal efficiency and customer satisfaction through new tools and methods to proactively address supply issues resulting from current technical/ quality processes. 3.) Procurement Process Improvement: The program will demonstrate tailored data collection and business processes for well-defined subsets of suppliers and procurement types to improve supplier responsiveness, cycle time and cost.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Weapon System Sustainment Accomplishments/Plans	5.400	5.214	5.637	0.000	5.637
FY 2009 Accomplishments: Planning Process Improvement: Projects in this area focus on producing new capabilities which, when implemented, will improve perfect order fulfillment while reducing inventory cost and procurement workload. Accomplishments in this area were led by continued support to DLA efforts to implement the WSSP-developed peak policy and matching economic retention rules. These included establishing peak policies for eight weapon systems and analyses to answer questions raised by the process owner. A companion project to automate the process of setting peak policies, which today requires extensive effort by personnel with specialized skills, was continued and is on track for successful completion in early FY 2010. Effort continued to mature the next generation inventory					

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
model and confirm its enormous potential to reduce inventory costs and unfilled orders. The project is on schedule for completion in mid-FY 2010, plans to transition the technology to routine use at that time are complete, and the initial steps taken. A new capability to more accurately predict initial wartime spares requirements was successfully completed and transitioned for Army use to Army Material Command (AMCOM), which cost-shared the project. A project was completed that analyzed the effects of the Stock Transport Order (STO) process that moves material from DLA depot to DLA depot, on the number of Unfilled Orders and material losses, and made recommendations to the process owner for actions to ameliorate those effects. Three projects were initiated to develop and demonstrate improvements to specific planning sub-processes and their performance metrics. The first project will emulate the performance of the Manu Demand Classification software and then use that capability to simulate the performance of forecasts that result from changes on Demand Classification parameters for the purpose of evaluating potential improvements. The second project will determine whether it is possible to work with Service program offices to assess which of their planned modification and upgrade activities will reduce future demand for DLA parts and thereby greatly reduce the incidence of DLA stocking items that are no longer needed. The third project will evaluate forecast model accuracy metrics to determine their reliability and validity, determine factually if the models are biased, if so how, and if there are predictive factors that would allow either the models to be corrected or adjusted with more fidelity, analyze forecast coverage interval aspects, and recommend improvements to the process owner. Technical/Quality Process Improvement: Projects in this area focus on resolving issues associated with various T/Q functions that are contributing to sourcing problems, unfilled orders, NSN proliferation and workforce inefficiencies. Accomplishments in this area were led by completion of an effort that successfully developed an attribute-based parts search and comparison capability for a simple user interface to DoD.					

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: Planning Process Improvement: The next generation inventory model development will be completed and the transition process initiated, but as the transition process proceeds during FY 2009, it is possible that additional R&D may be required to address specific issues to include a pilot project. The peak policy automation project also will be completed, and a smooth transition is expected to Defense Office of Operations Research and Resource Analysis (DORRA), which has the responsibility to set the peak policies. The FY 2009 starts in emulation, demand reduction and forecast analytics will be completed and transition initiated. New projects will build on those results and be defined jointly with the planning process and sub-process owners. New projects are planned to develop a multi-echelon next generation inventory model and an integrated stocking model that integrates the next generation inventory model for R items and the Peak Policy for N items with a more effective method of managing the movement of items between the R and N categories and a new economic retention method for controlling disposal. Technical/Quality Process Improvement: The automated capability to search Supply Discrepancy Reports (SDRs) and flag systemic item or supplier issues will be completed and transitioned to daily use at Defense Supply Center Philadelphia (DSCP), with ownership assumed by the Tech/ Quality process owner, who will have responsibility concerning subsequent transition to Defense Supply Center Columbus (DSCC) and Defense Supply Center Richmond (DSCR). The project to recommend ways to automate aspects of the Quality Notice (QN) resolution process will be completed and transitioned to the T/Q process owner and the key DSCP stakeholders. The Logistics Information Review Concept (LIRC) effort to identify what improvements could be made to the initial cataloging process that would reduce downstream sustainment problems will be completed through recommendations to the T/Q process owner and Defense Logistics Information Services (DLIS), and if warranted, a pilot will be defined and initiated to validate the benefits of selected recommendations. Effort will be initiated in partnering with Services to dramatically increase the flow of Technical Data Packages (TDPs) containing modern technical data of record for procurement, including identification					

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
of existing modern technical data, as well as development of a strategy roadmap for the process owner. Other new projects addressing tech/quality problems, including those identified during the LIRC project will be planned jointly with the process owner. The roadmap developed for counterfeit parts should lead to follow-on projects to quantify benefits and demonstrate process improvements. The Commercial and Government Entity Code (CAGE) hopping project will be completed which may result in the need for a pilot on selected commodities to quantify expected improvements. A Product test center capability assessment will be completed with recommendations for sizing the capability to fit DLA's requirements. Procurement Process Improvement: The project to assess the feasibility of using radio frequency identification device (RFID) or other automatic identification technology to improve Government Furnished Property (GFP) inventory accuracy will be complete and a pilot project defined to validate the benefits of the recommended approach. Other new projects will be developed jointly with the process owner and initiated. Benefits from projects in this area are reduced procurement workload, acquisition cost and backorders. *FY 2011 Base Plans:* Planning Process Improvement: A pilot project begun in late FY 2010 to initiate the process of transitioning the next generation inventory model for the wholesale level to daily use within DLA will be continued through the year, and other required transition activities initiated as defined jointly with the planning process owner. The FY 2010 project to develop and validate the benefits of a multi-echelon version of the next generation inventory model applicable to wholesale and retail levels will be completed late in the year and efforts initiated to define a pilot program as the first step in transition. FY 2010 projects will be completed that will provide and operate an Enterprise Business System (EBS) laboratory that will enable tuning the existing EBS Demand Classification software to optimize demand planning performance, define requirements for an approach to manage the risk of extreme values in the key performance metrics of unfilled orders, PRs and investment levels, and define requirements for an integrated stocking model that integrates the next generation inventory model for R items and					

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
the Peak Policy for N items with a more effective method of managing the movement of items between the R and N categories and a new economic retention method for controlling disposal. Follow-on development, validation and transition activities for these FY 2010 will be defined jointly with the planning process owner, and activities initiated as appropriate. New FY 2011 projects in the planning process area will be initiated as a result of problem definition efforts undertaken with the planning process team in FY 2010 and early FY 2011. Technical/Quality Process Improvement: The Logistics Information Review Concept activities will be completed and the results transitioned to the T/Q process owner and DLIS cataloging activity. Activities resulting from the Counterfeit Parts project completed in FY 2010 will focus on transitioning the process improvements into daily use within the Defense Supply Centers. FY 2010 projects will be completed that will pilot the new business processes containing specific review procedures for assessing Product Quality Deficiency Reports (PQDRs) to identify systemic quality issues so that the root causes can then be evaluated and addressed, establish that sharing, standardizing and integrating OEM, Government and supply chain commodity parts data has sufficient mutual advantage to warrant broader undertaking, map out an as-is high-level view of provisioning, Supply Support Request (SSR), NSN establishment, and cataloging processes to identify potential improvements/ enhancements to existing processes and identify and define process improvements, including a feedback mechanism, for alerting customers about product quality issues. Follow-on development, validation and transition activities for these FY 2010 will be defined jointly with the T/Q process owner, and activities initiated as appropriate. New FY 2011 projects in the T/Q process area will be initiated as a result of problem definition efforts undertaken with the T/Q process team in FY 2010 and early FY 2011. Procurement Process Improvement: The pilot of using automatic identification technology to improve GFP inventory accuracy will be initiated and continued through the year. Activities resulting from the CAGE Hopping project completed in FY 2010 will focus on transitioning the process improvements into daily use within the Defense Supply Centers. A wide-area workflow (WAWF)-focused project initiated					

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
in FY2010 will be completed to understand issues with receipt and destination acceptance for Direct Vendor Delivery (DVD) and Industrial Product-Support Vendor (IPV) shipments as they impact DoD's ability to correctly pay supplier invoices and recommend alternatives to address those issues. A follow-on pilot project will be initiated to validate the recommendations and prove their benefits as the first step in transitioning the results into daily use. New FY 2011 projects in the procurement process area will be initiated as a result of problem definition efforts undertaken with the procurement process team in FY 2010 and early FY 2011.					
Accomplishments/Planned Programs Subtotals	5.400	5.214	5.637	0.000	5.637

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

The metric is percent of completing demonstration projects transitioning per year. In FY 2009, nine demonstration projects were completed, and eight transitioned.

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COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
3: *Supply Chain Management (SCM)*	3.067	2.660	3.005	0.000	3.005	3.108	3.080	3.201	3.189	Continuing	Continuing

A. Mission Description and Budget Item Justification

DLA has organized along Supply Chains to provide an integrated, combat logistics solution that is coordinated among the services and across DoD. There is a need for the Agency to stay abreast of the latest supply chain management principals and techniques that will improve the supply availability of DLA managed items by managing supply chains to shorten lead times and reduce costs. The dynamic nature of DLA's mission requires a flexible R&D mechanism to rapidly take advantage of the evolving supply chain improvements and innovations.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Supply Chain Management Accomplishments/Plans	3.067	2.660	3.005	0.000	3.005
FY 2009 Accomplishments: 1.) DLA Land weapon systems supply chain, in conjunction with the USMC Light Armored Vehicle (LAV) Program Manager, developed the first version of a broad-based, forward-looking analytic tool based on parametric search methods; 26 triggers have been identified that would indicate when parts might have a high risk of becoming problems of supply. These parts are then reviewed and prioritized by DLA and LAV for potential support solutions. 2.) Surge Manufacturing Optimization Project. This project will demonstrate and document the increased surge capacities and reductions in manufacturing costs that can be achieved by replacing industry standard methods with equipment fully designed for integrated use. It will also determine the ROI for full roll-out under various surge scenarios.					
FY 2010 Plans: High power microwave tubes are used in military radar, communications, and other electronic warfare systems such as Aegis, Patriot, Harpoon, Phalanx, Advanced Medium Range Air to Air Missile (AMRAMM), Airborne Warning and Control System (AWACS), Standard Missile, and Lantirn. DLA					

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
must continue to support legacy systems and new systems that are being deployed with these components. There are only a handful of U.S. based microwave tube manufacturers. These companies make specialized products while relying on a supply base that is aging and becoming increasingly risky. A survey of 10 selected tubes indicates that backorder quantities grew from under 20 in 2004 to over 1200 in FY 2008. This initiative will conduct several pilot projects to improve critical manufacturing processes. *FY 2011 Base Plans:* Microwave tube project will continue with efforts focused on increased first time yields and improved process documentation and process optimization.					
Accomplishments/Planned Programs Subtotals	3.067	2.660	3.005	0.000	3.005

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Competitive Broad Area Announcement.

E. Performance Metrics

Backorder reduction.

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COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
4: *Strategic Distribution & Reutilization (SDR)*	3.440	3.309	3.601	0.000	3.601	3.684	3.750	3.815	3.881	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program consists of two thrusts: improvements and extensions to DLA distribution capabilities—especially for deployed warfighters—and technology insertions to enhance DLA's reutilization, de-militarization, and disposal capabilities. The distribution focus is on quickly establishing distribution operations in new theaters of operation, cutting customer wait time and reducing demands on strategic airlift. The reutilization focus is on reducing risks that militarily-sensitive equipment will be sold to potential enemies or other parties that could use the surplus material for nefarious purposes. Transition organizations are DLA's Defense Distribution Center (DDC) and Defense Reutilization and Marketing Service (DRMS).

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Strategic Distribution & Reutilization (SDR) Accomplishments / Planned Program	3.440	3.309	3.601	0.000	3.601
FY 2009 Accomplishments: Supported transition of Node Management & Deployable Depot (NoMaDD) Advanced Concept Technology Demonstration (ACTD) capabilities, including completion of Node Management development, CONOPS, and assessments. Demonstrated baseline Expeditionary Depot/Defense Reutilization and Marketing Office (DRMO) interoperability during TALISMAN SABER '09 field exercise, identifying gaps and seams in respective DDC and DRMS systems, CONOPS, and Information Technology systems. Analyzed Expeditionary Depot stock planning processes, revealing inter-Service/Agency process and system gaps and seams. Identified the Integrated Consumable Item Support (ICIS) system as project transition/implementation path. Launched the Humanitarian Assistance/Disaster Relief Asset Visibility Experiment (HAVE) to eliminate Expeditionary Depot capability gaps identified during its deployment following Hurricane Ike.					

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: Extend Node Management capabilities to encompass distribution reports and analytics for the Expeditionary Depot and DLA Joint Logistics Operations Center. Support fielding of Node Management to sustain Afghanistan surge operations. Develop and execute an Expeditionary Depot/ DRMO integration plan, including CONOPS and technology development. Define requirements, begin development, and establish CONOPs for an ICIS-based stock planning system. Develop and demonstrate HAVE capabilities to support CONUS disaster recovery requirements. Establish a DRMO Test Bed to allow assessment of DRMS training and technology development efforts in a controlled environment. Define requirements for DRMS' Life-Cycle Reutilization Technology Initiative, including development and assessment of methods and tools necessary to identify and properly manage Service-disposed property. Demonstrate suitability and accuracy of passive Real-Time Location System technology for use in DLA distribution centers. *FY 2011 Base Plans:* Complete Node Management development, assessment, and transition of distribution reports and analytics for the Expeditionary Depot and DLA Joint Logistics Operations Center. Demonstrate and assess integrated Expeditionary Depot/DRMO capabilities during TALISMAN SABER '11 or another field suitable exercise. Demonstrate and assess improvements to the ICIS system to facilitate Expeditionary Depot stock planning. Develop and demonstrate HAVE capabilities to support OCONUS disaster recovery requirements. Capture baseline operational and training metrics in the DRMO Test Bed and develop technology demonstration plans. Through the DRMS' Life-Cycle Reutilization Technology Initiative, launch development and assessment of methods and tools necessary to identify and properly manage Service-disposed property. Demonstrate distribution operation benefits of passive Real-Time Location System technology in DLA distribution centers.					
Accomplishments/Planned Programs Subtotals	3.440	3.309	3.601	0.000	3.601

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C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603712S: *Logistics Research and Development Technology (Log R&D)*	PROJECT 5: *Energy Readiness Program (ERP)*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
5: *Energy Readiness Program (ERP)*	1.691	2.016	2.179	0.000	2.179	2.215	2.243	2.282	2.322	Continuing	Continuing

A. Mission Description and Budget Item Justification

Program Management Office Support (PMO) for developing program strategies and goals, preparing documentation for the program, and performing quick reaction studies and analysis. Alternate Energy Development (AED) to include synthetic fuel specifications and acquisition plan; renewable fuels studies and planning, continued study of the use of hydrogen by DoD, and other directives specified in the Energy Policy Act (EPA) of 2005. Testing and approving of additional +100 Thermal Stability Additives (TSA) for use in Jet Propulsion Fuel (JP-8), and additional additive studies for +100 Low Temperature and Static Dissipater. Study and implementation of Automated Information and Data Collection (AIDC) to Defense Energy Supply Center (DESC) business processes, and automated adaptive planning tool to optimize the class III supply chain.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Energy Readiness Program (ERP) Accomplishments/Plans	1.691	2.016	2.179	0.000	2.179
FY 2009 Accomplishments: Continued PMO support in program implementation and planning ($.220 PMO), Alternative Fuel Engine Test ($.7 AFE), Cold Weather Biodiesel Additive Project ($.069 CWB), Continued support of testing and approval of additional +100 Thermal Stability Additives ($.025 TSA), FAME Cross Contamination Project (.085 FCC), Congressional Studies (.529 CMS).					
FY 2010 Plans: Continued PMO support in program implementation and planning ($.25 PMO), Continued Alternative Fuel Test support ($.2 AFE), San Pedro Net-Zero Plus initiative to assess/establish a net-zero energy defense fuel support point ($.200 AED), RP-2 Qualification (.2 R2Q), Continued support of FAME Cross Contamination Project (.1 FCC), Continued support of testing and approval of additional +100 Thermal Stability Additives ($.350 TSA).					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603712S: *Logistics Research and Development Technology (Log R&D)*	PROJECT 5: *Energy Readiness Program (ERP)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: Continued PMO support in program implementation and planning ($.250 PMO), Continued support of Alternative studies and testing ($.5 AED), San Pedro Net-Zero Plus initiative to assess/establish a net-zero energy defense fuel support point ($.500 AED), Continued support of testing and approval of additional +100 Thermal Stability Additives ($.300 TSA).					
Accomplishments/Planned Programs Subtotals	1.691	2.016	2.179	0.000	2.179

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N//A

E. Performance Metrics

Successful program documentation and support to include timely budget delivery and programmatic details (PMO). Successful identification of alternative drop-in replacement fuels suitable for further testing and certification (AFE). Successful incorporation of alternative fuel use (wind, solar, geothermal, hydrogen, waste-to-fuel) at the defense activities (AED). Successful qualification of RP-2 (R2Q). Successful completion of testing additional +100LT Thermal Stability Additives and incorporation into MILSPEC (TSA). Identification of risk for FAME contamination in Jet Fuel and methods for measuring FAME contamination (FCC).

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603712S: *Logistics Research and Development Technology (Log R&D)*	PROJECT 6 : *Defense Logistics Information Research (DLIR)*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
6 : *Defense Logistics Information Research (DLIR)*	0.271	2.135	2.304	0.000	2.304	2.341	2.373	2.414	2.456	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Logistics Information Research (DLIR) program objective is to research, identify, and implement potential or existing technologies using high-risk, high-payoff tools, methods, techniques, and products. The DLIR program partners with commercial industry to perform short-term projects (STPs) in various logistics business areas which align with the Defense Logistics Agency's (DLA's) strategic vision. DLIR improves functional and business processes using the latest technologies available, which support the nation's warfighter. The technical areas of interest are:

1.) Development of Logistics Data Interoperability & Availability. Enhances the functionality and compatibility of data in a complex data environment using supply chain relationships and lifecycle management to allow flexible visibility. 2.) Next Generation Automated Electronic Commerce and Sourcing. The Next Generation Automated Electronic Commerce and Sourcing technical area of interest focuses on employing the best of breed processes, practices, and technology to enable and/or streamline electronic commerce from the customer's point-of-need to point-of-satisfaction.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Defense Logistics Information Research (DLIR) Accomplishments/Plans	0.271	2.135	2.304	0.000	2.304
FY 2009 Accomplishments: Broad Agency Announcement released August 2008 – received 56 proposals against two technical areas of interests. Source selection board reviewed and forwarded eleven proposals for contract award to DSCP. DLIR R&D efforts in closing out FY 2007 and FY 2008 contracts; finalizing invoicing. DLIS continues to research industries cutting edge technology to improve and integrate logistics data management and information technology, into a broad array of data systems, data products and related services for the warfighter. DLIS provides life cycle supply item information for logistics processes from initial entry into the DoD supply chain through final disposal. DLIS uses its Information					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603712S: *Logistics Research and Development Technology (Log R&D)*	PROJECT 6 : *Defense Logistics Information Research (DLIR)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Technology expertise to provide this logistics data throughout the globe through interfacing systems, and other media to ensure the data gets to and can be used by the warfighter in any environment they may face. *FY 2010 Plans:* From the FY 2009 short-term projects – continue to award/fund proposals for the remaining base partner contract. Capturing more timely, accurate and complete data for supply item descriptions that support such logistics processes as procurement, technical quality, packaging, standardization, transportation, and disposal/demilitarization. Some of the DLIR R&D projects being pursued are looking at capturing web based commercial data, engineering and other technical data, photographic images and adding relevant data into the Federal Logistics Information System in order to improve National Stock Number records in the federal logistics information system (FLIS). Using advanced technologies to capture and translate commercially available web and other data to promote improved electronic commerce processes. These efforts serve to identify additional potential sources of supply for NSNs in order to support DLA in reducing procurement lead time, address diminishing sources issues and support reduced prices for competitive items. It also provides support to using commercial sources directly, such as prime vendors, commercial catalog contracts, long term contracts and others. For promoting internal efficiencies, these tools are also being pursued in order to provide DLIS with more productive and efficient technologies by enhancing the use of information technology and reducing the human footprint required. This will enable DLIS to manage its resources better and provide more services by reducing costs and improving productivity. Another focus area is to integrate the Federal Catalog System with other commercial and Federal agency data taxonomy and classification systems by developing tools for comparing and linking/translating other such classification systems with the National Stock Number. This enables the entirety of the DoD Supply					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603712S: *Logistics Research and Development Technology (Log R&D)*	PROJECT 6 : *Defense Logistics Information Research (DLIR)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Chain with its commercial and government processes by integrating those data systems and processes together. *FY 2011 Base Plans:* Release a Broad Agency announcement (BAA); anticipate receiving 59-75 proposals for source selection review and expect 3-4 contract awards as a result of the BAA.					
Accomplishments/Planned Programs Subtotals	0.271	2.135	2.304	0.000	2.304

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603712S: *Logistics Research and Development Technology (Log R&D)*	PROJECT 7: *Tent Network for Technology Implementation (TENTNET)*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
7: *Tent Network for Technology Implementation (TENTNET)*	0.000	0.982	0.979	0.000	0.979	0.976	0.973	0.970	0.967	Continuing	Continuing

A. Mission Description and Budget Item Justification

The purpose of the TENTNET program is to significantly improve supply chain surge capabilities for military tent requirements. The program is building a community of practice amongst DLA/DSCP, academia, and industry to help identify supply chain bottlenecks and structure short term R&D projects to address these bottlenecks.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
TENTNET Accomplishments/Plans	0.000	0.982	0.979	0.000	0.979
FY 2010 Plans: New Starts: Shop Floor Automation: This project will demonstrate and document the increased surge capacities and reductions in manufacturing costs that can be achieved by introducing automated seam-welding and material handling equipment into key bottleneck areas in the tent manufacturing process. It will also determine the ROI for full roll-out under various surge scenarios. E-Mall Access for TENTNET: This project will make it possible for MilSpec Tent information to be available to all EMALL users. It will expand the number of tent and shelter products that have rich technical and performance information available on DoD EMALL. The project is structured to benefit the entire tent manufacturing community by making their product more visible and, more importantly, it will improve the quality of product information available to the warfighter. Extension of Supply Chain Simulation project: This represents additional tasking for an existing project. The project will simulate the capability of the tent supply chain to surge production under varying conditions and requirements. We expect this project to produce an effective decision making					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603712S: *Logistics Research and Development Technology (Log R&D)*	PROJECT 7: *Tent Network for Technology Implementation (TENTNET)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
tool for DLA's Industrial Capabilities Programs allowing program management to evaluate the effect of placing buffer stocks at various levels within the supply chain. *FY 2011 Base Plans:* Shop Floor Automation: This project will demonstrate and document the increased surge capacities and reductions in manufacturing costs that can be achieved by introducing automated seam-welding and material handling equipment into key bottleneck areas in the tent manufacturing process. It will also determine the ROI for full roll-out under various surge scenarios. E-Mall Access for TENTNET: This project will make it possible for MilSpec Tent information to be available to all EMALL users. It will expand the number of tent and shelter products that have rich technical and performance information available on DoD EMALL. The project is structured to benefit the entire tent manufacturing community by making their product more visible and, more importantly, it will improve the quality of product information available to the warfighter. Extension of Supply Chain Simulation project: This represents additional tasking for an existing project. The project will simulate the capability of the tent supply chain to surge production under varying conditions and requirements. We expect this project to produce an effective decision making tool for DLA's Industrial Capabilities Programs allowing program management to evaluate the effect of placing buffer stocks at various levels within the supply chain.					
Accomplishments/Planned Programs Subtotals	0.000	0.982	0.979	0.000	0.979

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603712S: *Logistics Research and Development Technology (Log R&D)*	**PROJECT** 7: *Tent Network for Technology Implementation (TENTNET)*

E. Performance Metrics

The goal of the program is to transition positive project results to industry, assuming there is a credible business case to do so. With this goal in mind, each STP team will develop a set of key performance parameters (KPPs) at the onset of the project – the KPPs will be used to measure the success of the technology or process improvement involved.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
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COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
8: *Other Congressional Adds (OCAs)*	55.808	32.907	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Logistics Research and Development Technology Demonstration program overseas the management of Congressional Add programs assigned to the Defense Logistics Agency.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
Congressional Add: Advanced Mobile Microgrid *FY 2009 Accomplishments:* The objectives of this program are to field and demonstrate mature alternative/renewable energy/ power generation and distribution technology with a “sense of urgency” through participation in the Advanced Concept/Joint Concept Technology Demonstrations (AC/JCTD) process and to develop Defense Logistics Agency (DLA)/Defense Energy Support Center (DESC) Overseas Contingency Operations (OCO) and transition strategy for alternative/renewable energy and power technologies.	2.713	0.000
Congressional Add: Aging Systems Sustainment and Enabling *FY 2009 Accomplishments:* This program has been in operation with congressional funding since 1994. It’s current objectives are to: expand the industrial supply base in the Oklahoma area, identify, nurture and certify companies to participate in the procurement processes through their electronic Virtual Enterprise Development (VED) - of which, 65% are registered as 8A, minority owned, veteran owned, or Hub Zone, and	1.995	2.387

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603712S: *Logistics Research and Development Technology (Log R&D)*	PROJECT 8: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
to introduce technology applications and product enhancements through reverse engineering or redesign. *FY 2010 Plans:* To be determined.		
Congressional Add: Alternative Energy from Organic Sources *FY 2009 Accomplishments:* The objective of this program is to evaluate an old technology using new advances in genetic engineering; this process stimulates various strains of algae to produce oil from carbohydrates as a renewable alternative to petroleum in the refining of diesel and jet fuel. *FY 2010 Plans:* To be determined.	5.984	5.969
Congressional Add: Biofuels Program *FY 2009 Accomplishments:* The objective of this program is to develop advanced biofuel blends from biomass feed stocks to replace JP-8 fuels. *FY 2010 Plans:* To be determined.	1.596	1.592
Congressional Add: Commodity Management System Consolidation	1.596	1.592

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603712S: *Logistics Research and Development Technology (Log R&D)*	PROJECT 8: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
FY 2009 Accomplishments: The objective of this program is to provide a flexible tool to optimize Depot part ordering while improving knowledge management via collection of Point-of-Use data. *FY 2010 Plans:* To be determined.		
Congressional Add: Connectory Expansion for Rapid Identification of Technology Sources for DoD *FY 2009 Accomplishments:* The objective of this program is to maintain/develop a continuous sourcing tool for a wide range of backorder/parts manufacturers, Diminishing Manufacturing Source Material Shortage (DMSMS), and market/technology assessments.	0.399	0.000
Congressional Add: Continuous Acqusition and Lifecycle and Integrated Data Environment and Defense Logistics Enterprise Services Program *FY 2009 Accomplishments:* This program is a group of projects designed to promote information technology as a key element in achieving war fighter superiority in the 21st century. Objectives include: supporting the warfighter and Overseas Contingency Operations (OCO) with customs clearance of Department of Defense (DoD) shipments, developing Government Industry Data Exchange Program (GIDEP) Next Generation System focused on the Diminishing Manufacturing Source and Material Shortage (DMSMS) centralized database, logistics transformation and nanotechnology. *FY 2010 Plans:* To be determined.	3.191	3.183
	1.995	2.387

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603712S: *Logistics Research and Development Technology (Log R&D)*	**PROJECT** 8: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
Congressional Add: Defense Fuelcell Locomotive *FY 2009 Accomplishments:* This program is a continuation of Fuel Cell Locomotive work to build, evaluate and report on the performance of a hybrid fuel cell locomotive using the design previously worked under FY 2007 funding. Funding is being applied to complete the integration of a fuel cell switcher locomotive by installing a 350 bar composite wrapped compressed hydrogen storage system, a Direct Current (DC) to DC electric converter to provide necessary voltage requirements for onboard equipment and a power to grid processing unit to conduct testing. Accomplishments to date include systems designed and largely built with current work focusing on system testing and integration. *FY 2010 Plans:* To be determined.		
Congressional Add: Emerging Critical Interconnection Technology *FY 2009 Accomplishments:* The objectives of this program are to assist North American printed circuit board (PrCB) technical and manufacturing interests in meeting current and future DOD Warfighter needs and to establish a technology transition program between the DOD Naval Seas Systems Command at Crane, Indiana (NAVSEA) and domestic industry participants supporting future DOD needs. Accomplishments to date include: Emulator demonstration project, training development, and solder-less assembly project.	1.995	0.000
Congressional Add: Energy Strategy for the Department of Defense *FY 2009 Accomplishments:* The objective of this program is to advance the state of knowledge of Carbon Capture and Sequestration (CCS) technology associated with the conversion of carbonaceous resources into liquid fuels for DOD.	19.943	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
Congressional Add: Florida Defense Manufacturing Supply *FY 2009 Accomplishments:* The purpose of this program is to leverage existing industrial capacity in Florida, as well as Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, to address Warfighter requirements for machined parts by developing methodologies to resolve parts shortages, surge demand, sustainment and obsolescence.	1.995	0.000
Congressional Add: High Pressure Mobile Water Delivery System *FY 2009 Accomplishments:* This project involves research, development, testing and evaluation of a high pressure mobile water delivery system, performing the engineering integration and prototyping of the system for defense wide applications. This system is capable of serving multiple functions for military ground operations, along with civilian and homeland security applications. This add is being reprogrammed to The U.S. Army Tank Automotive, Research, Development and Engineering Center (TARDEC).	0.000	0.000
Congressional Add: New England Defense Manufacturing Supply Chain Institute *FY 2009 Accomplishments:* The purpose of the program is to leverage existing industrial capacity in New England to address Warfighter requirements for machined parts by developing methodologies to resolve parts shortages, surge demand, sustainment and obsolescence. DoD and DLA will benefit by having access to a network of suppliers to meet DoD critical machined parts requirements. TimeWise Management Systems (TWMS) has developed; field tested, and verified a technology-assisted integrated engineering and production solution that includes the following capabilities. This integrated solution has been field tested with commercial and military machine shops. Results so far indicate that the	0.798	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603712S: *Logistics Research and Development Technology (Log R&D)*	PROJECT 8: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
engineering and manufacturing time for machine shops can be reduced by 50 percent to 75 percent depending on the part.		
Congressional Add: On-Site Alternative Fuel Manufacturing System *FY 2009 Accomplishments:* The objective of this program is to reduce the logistics of electrical power generation at Forward Operating Bases (FOBs) using proprietary biomass feedstock production and processing technologies for hydrogen that is modular and transportable.	1.197	0.000
Congressional Add: Reliability Testing of Lead Free Circular Components *FY 2009 Accomplishments:* The objective of this program is to find solutions with respect to lead-free and the potential deleterious impact on the reliability and safety of critical military electronics. The impact of lead-free on the reliability and safety of military electronics is largely unknown. The acquisition of statistically rigorous technical data relevant to the military environments is paramount to establish a viable mechanism to manage the risks inherent with lead-free.	1.436	0.000
Congressional Add: Smart Modular Regenerative Off-Grid Hydrogen Fuel Cell *FY 2009 Accomplishments:* The objective of this program is to design and produce an upgraded mobile version of the stationary system currently under development for the Navy and advance next generation fuel cell and electrolysis stack technologies.	0.997	0.000
Congressional Add: Vehicle Fuel Cell and Hydrogen Logistics Program	7.978	6.366

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603712S: *Logistics Research and Development Technology (Log R&D)*	PROJECT 8: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
FY 2009 Accomplishments: The objective of this program is to conduct Basic/applied Research and Development (R&D) and/or pilot programs in support of the Vehicle Fuel Cell and Hydrogen Logistics Program (VHP) - advance hydrogen fuel cells, hydrogen fuel infrastructure and vehicle integration Technology Readiness Levels (TRLs) and Manufacturing Readiness Levels (MRLs). *FY 2010 Plans:* To be determined.		
Congressional Add: Progressive Research for Sustainable Manufacturing *FY 2010 Plans:* To be determined.	0.000	1.194
Congressional Add: Reduced Cost Supply Readiness *FY 2010 Plans:* To be determined.	0.000	1.194
Congressional Add: Cellulosic-Derivied Biofuels Research *FY 2010 Plans:* To be determined.	0.000	2.387
Congressional Add: Fuel Cell Hybrid Battery Manufacturing for Defense Operations *FY 2010 Plans:* To be determined.	0.000	0.796

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603712S: *Logistics Research and Development Technology (Log R&D)*	**PROJECT** 8: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
Congressional Add: Next Generation Manufacturing Technologies Initiative *FY 2010 Plans:* To be determined.	0.000	1.592
Congressional Add: Woody Biomass Converison for JP-8 Fuel *FY 2010 Plans:* To be determined.	0.000	1.273
Congressional Add: Radio Frequency Identification Technologies *FY 2010 Plans:* To be determined.	0.000	0.995
Congressional Adds Subtotals	55.808	32.907

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*				R-1 ITEM NOMENCLATURE PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*							
COST ($ in Millions)	**FY 2009 Actual**	**FY 2010 Estimate**	**FY 2011 Base Estimate**	**FY 2011 OCO Estimate**	**FY 2011 Total Estimate**	**FY 2012 Estimate**	**FY 2013 Estimate**	**FY 2014 Estimate**	**FY 2015 Estimate**	**Cost To Complete**	**Total Cost**
Total Program Element	28.414	29.203	29.109	0.000	29.109	29.024	28.944	29.448	29.954	Continuing	Continuing
1: *Capabilities Based Logistics*	5.380	1.548	2.214	0.000	2.214	3.191	4.131	4.177	4.219	Continuing	Continuing
2: *Deployment and Distribution Velocity Management*	6.591	7.644	5.322	0.000	5.322	5.595	5.883	5.991	6.102	Continuing	Continuing
3: *Cross Domain Intuitive Planning*	1.815	2.430	1.804	0.000	1.804	1.739	1.859	1.894	1.928	Continuing	Continuing
4: *End-to-End Visibility*	2.779	4.755	4.765	0.000	4.765	3.921	4.680	4.765	4.853	Continuing	Continuing
5: *Distribution Planning and Forecasting*	2.750	2.870	2.753	0.000	2.753	2.870	3.073	3.130	3.186	Continuing	Continuing
6: *Joint Transportation Interface*	7.174	8.831	7.376	0.000	7.376	8.208	7.845	7.990	8.137	Continuing	Continuing
7: *Distribution Protection/Safety/ Security*	1.925	1.125	4.875	0.000	4.875	3.500	1.473	1.501	1.529	Continuing	Continuing

A. Mission Description and Budget Item Justification

Overseas Contingency Operations (OCO) lessons learned and daily operations indicate that current distribution and logistics processes remain outdated and are rarely capable of providing required warfighter support in an agile, efficient and economical manner. Designation of United States Transportation Command (USTRANSCOM) as the Distribution Process Owner (DPO) and shift within the Department to transform the distribution and logistics processes, demands the examination and improvement of the entire supply chain. Unpredictable and extended global distribution routes, limited visibility of sustainment requirements, force packaging limitations, lift constraints, complex supply chains, as well as non-networked battlefield command and control (C2), planning, and decision support tools impede timely warfighter logistical support. The centralization of distribution and logistics intermodal research and development facilitates the development/fielding of transformational enhancements to validated distribution capability gaps. The USTRANSCOM Research, Development, Test, & Evaluation (RDT&E) program explores and matures promising technologies to enhance support to combatant commanders and other customers of Department of Defense's (DoD's) distribution and transportation systems.

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency	DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*

B. Program Change Summary ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	30.000	29.356	0.000	0.000	0.000
Current President's Budget	28.414	29.203	29.109	0.000	29.109
Total Adjustments	-1.586	-0.153	29.109	0.000	29.109
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	-1.508	0.000			
• SBIR/STTR Transfer	-0.078	0.000			
• FY 2011 Other Program Changes	0.000	0.000	29.109	0.000	29.109
• FY 2010 Economic Assumptions	0.000	-0.140	0.000	0.000	0.000
• FY 2010 Federally Funded Research and Development Center Reduction	0.000	-0.013	0.000	0.000	0.000

Change Summary Explanation

Reprogram JALIS-NG project (PE0607713S) to BA6: $.733M

FY 2009 - 26 PA OMNIBUS Reprogramming Action: $.694M

FY 2009 Economic Assumptions: $.081M

FY 2010 Economic Assumptions: $.140M

FY 2010 Federally Funded Research and Development Center Reduction: $.013M

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*	PROJECT 1: *Capabilities Based Logistics*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
1: *Capabilities Based Logistics*	5.380	1.548	2.214	0.000	2.214	3.191	4.131	4.177	4.219	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Department requires procedures and technologies which provide enterprise-level capabilities critical to the distribution system to improve performance of the end-to-end DoD supply chain in direct support of the full range of military operations. Ability to rapidly respond to customers' changing demands, with a reliably high level of service. These needs include: capabilities which enhance any supply or transportation mission (aeromedical, air refueling, joint logistics over-the-shore, and seabasing); analysis, tailoring and implementation of selected best enterprise-level practices from industry; and tools/procedures to optimize transportation plus supply (distribution) plans and schedules in support of an entire operation. This project addresses the required mission support to combatant commanders and other customers in the area of capability-based logistics.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Capabilities Based Logistics Accomplishments/Plans	5.380	1.548	2.214	0.000	2.214
FY 2009 Accomplishments: Completed Node Management Web/Client development and transition activities. Funded Office of Research and Technology Applications (ORTA) initiatives. Commenced effort with Office of Naval Research (ONR)/ Office of the Chief of Naval Operations (OPNAV) on capability to move half loaded 20ft. containers at sea.					
FY 2010 Plans: Continue to fund/support ORTA efforts. Continue collaboration effort with ONR/OPNAV to develop ability to conduct at sea transfer of fully loaded containers within the seabase.					
FY 2011 Base Plans: Continue to fund/support ORTA efforts. Begin development of capability to link various types of service ship-to-shore causeways.					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*	PROJECT 1: *Capabilities Based Logistics*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Accomplishments/Planned Programs Subtotals	5.380	1.548	2.214	0.000	2.214

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Critical enterprise-level distribution system capabilities to improve DoD supply chain performance. Plus focus on research and development to address warfighting requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*	PROJECT 2: *Deployment and Distribution Velocity Management*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
2: *Deployment and Distribution Velocity Management*	6.591	7.644	5.322	0.000	5.322	5.595	5.883	5.991	6.102	Continuing	Continuing

A. Mission Description and Budget Item Justification

DoD requires procedures/technologies targeted at optimizing throughput at the nodes and through the conduits of the deployment and distribution supply chains, from origin to point of use and return to include: inventory management enhancers (includes node cargo management/tracking); materiel handling innovations (including methods of reducing handling); improved physical access to nodes (includes aircraft all-weather visual systems); port throughput enhancements (includes in-port time reduction methods); and innovative delivery methods (for example, precision airlift, autonomous re-supply). This project addresses required mission support to combatant commanders and other customers of DoD's distribution and transportation systems in the area of deployment/distribution velocity management.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Deployment and Distribution Velocity Management Accomplishments/Plans	6.591	7.644	5.322	0.000	5.322
FY 2009 Accomplishments: Completed Joint Modular Intermodal Distribution System (JMIDS)/Joint Capability Technology Demonstration (JCTD) and pursued development of lighter version of Joint Modular Intermodal Container to meet evolving warfighter need. Prototyped air-skid to allow the movement of cargo and vehicles around the cargo hold without having to move vehicles with drivers or use forklifts/other material handling equipment. Commenced development of a common joint cargo handling system (Joint Recovery and Distribution System (JRaDS JCTD) that meets or exceeds the requirements for multiple joint operational concepts (including major combat, overseas contingency operations, and stability operations). Completed development of capability to carry oversized vehicles on containerships. Continued development of unique identification number for commodities in supply chain.					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*	**PROJECT** 2: *Deployment and Distribution Velocity Management*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: Continue air-skid development/assessment to move cargo/vehicles without use of vehicles with drivers or material handling equipment while at sea. Continue development/assessment of a common joint cargo handling system (JRaDS) that meets or exceeds the requirements for multiple joint operational concepts. Continue development of unique identification number for commodities in supply chain. *FY 2011 Base Plans:* Complete air-skid development, document requirement within Joint Capability Integrated Development System (JCIDS), and transition proven technologies. Conduct user evaluation and commence transition activities associated with common joint cargo handling system (JRaDS). Complete unique ID number.					
Accomplishments/Planned Programs Subtotals	6.591	7.644	5.322	0.000	5.322

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Increase force projection and sustainment velocity. Plus focus on research and development to address warfighting requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*	PROJECT 3: *Cross Domain Intuitive Planning*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
3: *Cross Domain Intuitive Planning*	1.815	2.430	1.804	0.000	1.804	1.739	1.859	1.894	1.928	Continuing	Continuing

A. Mission Description and Budget Item Justification

Procedures/technologies which improve decision-making and collaboration within the supply chain, from the planning stage to real-time execution and retrograde operations, without need for highly specialized operators of the tools. Projects in this area address following areas: decision support tools for any echelon of the supply chain or decision-maker, distribution process simulations and models for analysis and training, distribution demand forecasting/execution monitoring tools, on-line training, automated decision-maker support (e.g., queuing, alerting, recommended courses of action), automated status monitoring with information fusion and drilldown capability, and resilient C2 infrastructure capabilities. This project will provide required mission support to combatant commanders and other distribution/ transportation customers in the area of collaborative planning/execution/information sharing/decision support tools.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Cross Domain Intuitive Planning Accomplishments/Plans	1.815	2.430	1.804	0.000	1.804
FY 2009 Accomplishments: Continued efforts to enhance Deployment Distribution Operations Center (DDOC) operations through work flow engineering. Commenced development of cross domain suite of tools for joint warfighter with text chat language, translation, whiteboard, audio and extendable markup language (XML) guard functionality (Cross Domain Collaborative Info Environment (CDCIE) JCTD). Commenced collaborative effort with United States Marine Corps (USMC) to link tactical maintenance status/report to strategic systems.					
FY 2010 Plans: Continue efforts to enhance DDOC operations through work flow engineering. Complete development/evaluation of cross domain suite of tools for joint warfighter with text chat language, translation, whiteboard, audio and XML guard functionality ((CDCIE) JCTD) and commence transition					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*	PROJECT 3: *Cross Domain Intuitive Planning*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
activities. Continue collaborative effort with USMC to link tactical maintenance status/report to strategic systems. *FY 2011 Base Plans:* Continue efforts to enhance DDOC operations through work flow engineering. Complete development/assessment to link USMC tactical maintenance status/report information to strategic systems. Begin to develop capability to predict maint and logistics issues/demand forecasting to optimize supply chain.					
Accomplishments/Planned Programs Subtotals	1.815	2.430	1.804	0.000	1.804

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Improve decision-making and collaboration within the supply chain and focus on research and development to address warfighting requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*	PROJECT 4: *End-to-End Visibility*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
4: *End-to-End Visibility*	2.779	4.755	4.765	0.000	4.765	3.921	4.680	4.765	4.853	Continuing	Continuing

A. Mission Description and Budget Item Justification

Warfighters need end-to-end visibility of all aspects of the projection and sustainment to enable operations. This requires investigation into next generation Automated Information Technology (AIT)/Total Asset Visibility (TAV) technologies and/or container security to improve end-to-end distribution visibility and enhance planning/ execution and transform sustainment operations. Includes the ability to determine immediate, reliable, and accurate shipment status through system access or event management. Develop an over-arching process and system architecture which will automate and integrate existing and innovative new programs across the supply chain to provide complete In Transit Visibility (ITV) data.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
End-to-End Visibility Accomplishments/Plans	2.779	4.755	4.765	0.000	4.765
FY 2009 Accomplishments: Tested and evaluated military utility of commercial off the shelf (COTS) satellite tracking devices to enhance in transit visibility. Commenced next generation Portable Deployment Kit effort designed to provide end-to-end visibility in austere/mobile environments. Commenced development with Army/ Logistics Info Agency (LIA) of a mobile AIT capability in a military environment in all environments. Commenced multi-year effort with Air Force Institute of Technology (AFIT) to investigate emerging Modeling and Simulation (M&S) technologies for distribution.					
FY 2010 Plans: Complete next generation Portable Deployment Kit (PDK) effort designed to provide end-to-end visibility in austere/mobile environments. Continue development with Army/Logistics Info Agency of a mobile AIT capability in a military environment in all environments. Continue M&S innovation with AFIT.					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*	PROJECT 4: *End-to-End Visibility*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: Complete development/assessment of mobile AIT capability and commence JCIDS documentation and transition related activities. Begin effort to gain visibility over non-DOD stock during humanitarian assistants operations. Develop effort to increase the range of reading RFID tags. Continue M&S innovation.					
Accomplishments/Planned Programs Subtotals	2.779	4.755	4.765	0.000	4.765

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Provide end-to-end visibility of all aspects of the projection and sustainment of forces and equipment. Plus focus on research and development to address warfighting requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*	PROJECT 5: *Distribution Planning and Forecasting*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
5: *Distribution Planning and Forecasting*	2.750	2.870	2.753	0.000	2.753	2.870	3.073	3.130	3.186	Continuing	Continuing

A. Mission Description and Budget Item Justification

There is a lack of collaborative distribution planning, based on an understanding of aggregated customer requirements, for optimizing the end-to-end distribution process. Planning, forecasting and collaboration are insufficiently advanced to fully synchronize people, processes and assets to execute planned operations. Automated tools should be able to dynamically analyze/predict demand and provide input to advanced distribution planning systems. Project investigates the need for flexible end-to-end enhanced modeling and simulation and collaborative decision support tools.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Distribution Planning and Forecasting Accomplishments/Plans	2.750	2.870	2.753	0.000	2.753
FY 2009 Accomplishments: Commenced effort with Joint Forces Command (JFCOM) and Services to develop a Single Load Planning Capability-Collaborative Info Workspace (SLPC-CIW) that enables load planners across the enterprise to collaborate to provide end-to-end load plans.					
FY 2010 Plans: Complete SLPC-CIW effort.					
FY 2011 Base Plans: Commence integration of projection and sustainment planning and decision support tools into a federate suite. Commence effort to build a highly configurable, agile Distribution Process Nodal Model capable of expressing and analyzing complex and detailed distribution processes at nodes. Commence anti-piracy automated information system to increase visibility/tracking of vessels as					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*	PROJECT 5: *Distribution Planning and Forecasting*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
sea. Develop data quality and standardization for decision support utilizing semantic technology. Commence effort to develop tool to optimize planning for air refueling tasking and allocation.					
Accomplishments/Planned Programs Subtotals	2.750	2.870	2.753	0.000	2.753

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Planning based on an understanding of customer requirements for optimizing the distribution process. Plus focus on research and development to address warfighting requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*	PROJECT 6: *Joint Transportation Interface*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
6: *Joint Transportation Interface*	7.174	8.831	7.376	0.000	7.376	8.208	7.845	7.990	8.137	Continuing	Continuing

A. Mission Description and Budget Item Justification

Synchronizing strategic/theater delivery capabilities to meet increasingly dynamic customer needs. Transportation information exchange across the DoD is inhibited by the disparity of systems, differing data standards, and insufficient interfaces. Queries and retrieval of status and shipment information cannot be executed due to lack of connectivity between the various components of the supply chain. The ability to maintain situational awareness of movements at macro/micro (drill down) levels, with associated force and sustainment cargo on board; to track force packages progress, and rapidly determine the impact of any delays or changes to sailing progress and arrival at port of debarkation; and to conduct "what -if" impact assessment of possible changes to delivery asset's course, speed or departure/arrival information as it relates to force or force package delivery/impact of any change on the closure of force packages in theater is required. The ability of USTRANSCOM to supply transportation support for homeland defense and/or disaster relief depends on effective ways to link with other governmental and civilian agencies. Also need to explore the many barriers across the Joint Deployment and Distribution Enterprise (JDDE), to include non-DoD government entities, coalition partners, non-government organizations, and commercial industry, which can create confusion/conflict or detract from the optimization of the JDDE.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Joint Transportation Interface Accomplishments/Plans	7.174	8.831	7.376	0.000	7.376
FY 2009 Accomplishments: Continued multi-year development/integration of systems for Common Operational Picture for Deployment and Distribution (COP D2) that will mitigate effect of multiple, overlapping functional legacy systems and business processes, and provide timely, relevant, and actionable information to enhance the warfighters' level of confidence in joint distribution processes. Continued development of database/query tool to exchange air and sealift schedules to support Coalition Task Force operations enhancing logistics information exchange between coalition partners – effort supporting Coalition Mobility System (CMS) JCTD. Developed the Community of Exchange (CoEx) for JDDE that will enable interoperability among heterogeneous systems and facilitate exchange of knowledge within the context of formalized JDDE processes. Continued Exploration of cognitive-based visualization,					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*	PROJECT 6: *Joint Transportation Interface*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
alerting and optimization engines that make optimal/near optimal resource allocation, transportation, and distribution recommendations. *FY 2010 Plans:* Continue COP(D2) and Coalition Mobility System (CMS) JCTD efforts. Commence multi-year development of an automated data quality analysis capability linked to the Enterprise Data Warehouse (EDW) that will enable end-to-end analysis of data quality and system performance. Support AT21Cooperative Research and Development Agreement (CRADA) efforts. Continue development of cognitive-based visualization, alerting and optimization engine effort. Begin effort to investigate/ demonstrate semantic solutions in support of the Corporate Governance Processes (CGP). *FY 2011 Base Plans:* Continue COP(D2) efforts/transition CMS JCTD proven technologies. Continue multi-year development of an automated data quality analysis capability linked to the Enterprise Data Warehouse (EDW) that will enable end-to-end analysis of data quality and system performance. Support Agile Transportation for the 21st Century (AT21) Cooperative Research and Development Agreement (CRADA) efforts. Complete development/commence assessment of cognitive-based visualization, alerting and optimization engine effort. Complete demonstration of semantic solutions for CGP.					
Accomplishments/Planned Programs Subtotals	7.174	8.831	7.376	0.000	7.376

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*	**PROJECT** 6: *Joint Transportation Interface*

E. Performance Metrics

Synchronizing, through information exchange, strategic/theater delivery capabilities to meet warfighter needs. Plus focus on research and development to address warfighting requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*	PROJECT 7: *Distribution Protection/Safety/Security*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
7: *Distribution Protection/Safety/ Security*	1.925	1.125	4.875	0.000	4.875	3.500	1.473	1.501	1.529	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Theater Commander has not always been able to provide the appropriate security in a timely manner during deployment. In some cases there are insufficient security assets to oversee convoy security in-country; therefore, all movement requirements are competing for the same limited resources. Additionally need to explore new, portable methods of detecting hazardous/asymmetric materials in very small quantities to support safe logistics operations. Also explore technologies to enhance the capability to deliver personnel/materiel to anti-access/austere airfields and seaports.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Distribution Protection/Safety/Security Accomplishments/Plans	1.925	1.125	4.875	0.000	4.875
FY 2009 Accomplishments: Developed, integrated and tested advanced sensors, guidance approaches, and control system technologies relevant to all weight classes of Joint Precision Airdrop Systems (JPADS). Completed light-weight trauma module development/commence transition activities into program of record. Commenced collaborative effort with USMC, JFCOM, and Army to assess capability of sustaining warfighters via unmanned aerial system slingload.					
FY 2010 Plans: Development of improved guidance/navigation/control systems to improve the delivery accuracy of airdropped supplies. Complete demonstration of unmanned aerial system sling load capability.					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603713S: *Deployment and Distribution Enterprise Technology (USTRANSCOM)*	PROJECT 7: *Distribution Protection/Safety/Security*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: Development of improved guidance/navigation/control systems to improve the delivery accuracy of airdropped supplies. Begin development of capability to delivery joint precision airdrop from helicopter slingload. Commence development of standoff cargo screening for explosives/chemicals. Start effort to investigate effects of chemical agents on aircraft structures. Develop ability to decontaminate aircraft interiors using heat and humidiity.					
Accomplishments/Planned Programs Subtotals	1.925	1.125	4.875	0.000	4.875

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Providing the appropriate security in a timely manner during deployment and distribution operations. Plus focus on research and development to address warfighting requirements.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*				R-1 ITEM NOMENCLATURE PE 0603720S: *Microelectronics Technology Development and Support (DMEA)*							
COST ($ in Millions)	**FY 2009 Actual**	**FY 2010 Estimate**	**FY 2011 Base Estimate**	**FY 2011 OCO Estimate**	**FY 2011 Total Estimate**	**FY 2012 Estimate**	**FY 2013 Estimate**	**FY 2014 Estimate**	**FY 2015 Estimate**	**Cost To Complete**	**Total Cost**
Total Program Element	36.392	70.597	26.878	0.000	26.878	27.400	27.838	28.456	29.086	Continuing	Continuing
1: *Technology Development*	0.000	26.310	26.878	0.000	26.878	27.400	27.838	28.456	29.086	Continuing	Continuing
2: *Other Congressional Adds (OCAs)*	36.392	44.287	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Microelectronics Activity (DMEA) provides a vital service as the joint Department of Defense (DoD) Center for microelectronics acquisition, adaptive operations and support - advancing future microelectronics research, development, technologies and applications to achieve the Department's strategic and national security objectives. An important part of the DMEA mission is to research current and emerging microelectronics issues with a focus on warfighters' needs. To this end, DMEA is integrally involved in the development of capabilities and resultant products based on technologies whose feasibility has been demonstrated but which have yet to be applied to real-world and military applications.

DMEA resolves microelectronics technology issues in weapon systems by quickly developing and executing appropriate solutions to not only keep a system operational but elevate it to the next level of sophistication or to meet new threats. DMEA provides critical microelectronics design and fabrication skills to ensure that the DoD is provided with systems capable of ensuring technological superiority over potential adversaries. DMEA provides critical, quick turn solutions for DoD, intelligence, special operations, cyber and combat missions as well as microelectronic parts that are unobtainable in the commercial market. DMEA's knowledge of varying military requirements across a broad and diverse range of combatant environments and missions—along with its unique technical perspective—allows it to develop, manage and implement novel microelectronic solutions to enhance mission capability. DMEA can then utilize these cutting-edge technology capabilities and products in the solutions it develops for its military clientele. After many years of performing analogous efforts, the technical experience, mission knowledge, and practical judgment that are gained from preceding efforts are often incorporated into subsequent technology maturation projects.

Microelectronics technology is clearly a vital and essential technology for all operations within the DoD. Yet, as critical as this technology is to DoD operations, the defense microelectronics market share is now less than 0.1% because the use of microelectronics has exploded in the commercial world. This commercial pressure is driving the semiconductor industry to supersede successive generations of microelectronics technologies with new technologies every 18 months or sooner. Due to intense business pressures, the semiconductor industry does not respond to the DoD's particular needs of ultra-low volumes, extended availability timeframes, or substantial security concerns. This has caused many commercial semiconductor facilities to close their doors or move off-shore to unsecure locations. Such intense commercial pressures make it impossible to assure that the current DoD suppliers will be available to satisfy the future DoD requirements. Therefore, DMEA has established a unique-in-the-world flexible integrated circuit manufacturing capability that provides microelectronics design, development, and manufacturing

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support on demand. DMEA produces limited quantities of components to meet the DoD's unique weapon system needs for a trusted, assured, and secure supply of microelectronics. This unique capability is essential to all major weapon systems, combat operations, and support needs. As such, DMEA serves the DoD, other US Agencies, industry and Allied nations.

B. Program Change Summary ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	32.480	26.310	0.000	0.000	0.000
Current President's Budget	36.392	70.597	26.878	0.000	26.878
Total Adjustments	3.912	44.287	26.878	0.000	26.878
• Congressional General Reductions		-0.233			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		44.520			
• Congressional Directed Transfers		0.000			
• Reprogrammings	3.912	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• FY 2011 Other Program Changes	0.000	0.000	26.878	0.000	26.878

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2009	FY 2010
Project: 2: *Other Congressional Adds (OCAs)*		
Congressional Add: *3-D Electronics and Power*	2.394	4.775
Congressional Add: *Agile Joint Tactical Radio System (JTRS) Integrated Circuits*	1.595	0.000
Congressional Add: *C-Scout Container Security System*	2.394	0.000
Congressional Add: *Carbon Nanotube Thin Film Devices to Portable Power*	1.595	1.592
Congressional Add: *Defense Command Integration Center*	0.878	0.000
Congressional Add: *Electronics and Materials for Flexible Sensors and Transponders (EMFST)*	3.191	4.775
Congressional Add: *Feature Size Migration at DMEA Advanced Reconfigurable Manufacturing of Semiconductors (ARMS) Foundry*	1.995	2.387
Congressional Add: *High Performance Tunable Materials*	2.393	3.581

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Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2009	FY 2010
Congressional Add: *Scalable Topside Array Radar Demonstrator*	0.798	0.000
Congressional Add: *Semiconductor Photomask Technology Infrastructure Initiative*	2.393	1.592
Congressional Add: *Smart Bomb Millimeter Wave Radar Guidance System*	1.995	2.308
Congressional Add: *Sprintonics Memory Storage Technology*	2.393	2.785
Congressional Add: *Superlattice Nanotechnology*	1.995	0.000
Congressional Add: *Tunable Micro Radio for Military Systems*	4.787	5.570
Congressional Add: *X-Band/W-Band Solid State Power Amplifier*	1.596	0.995
Congressional Add: *UAV Situational Awareness Systems*	1.000	0.000
Congressional Add: *Indium-Based Nitride Devices for Advances Integrated Systems*	3.000	0.000
Congressional Add: *AESSA Technology Insertion Program*	0.000	2.387
Congressional Add: *End to End Semi Fab Alpha Tool*	0.000	1.592
Congressional Add: *Heterogeneous Gallium Nitride/Silcon Microcircuit Technology*	0.000	1.592
Congressional Add: *Superconducting Quantum Information Technology*	0.000	0.796
Congressional Add: *Shipping Container Security System Field Evaluation*	0.000	3.581
Congressional Add: *Vehicle and Dismount Exploitation Radar (VADER)*	0.000	3.979
Congressional Add Subtotals for Project: 2	36.392	44.287
Congressional Add Totals for all Projects	36.392	44.287

Change Summary Explanation

The increase to the FY 2010-2011 Reseach, Development, Test and Evaluation (RDT&E) budget for PE0603720S is not due to a new start. It is the result of transferring the DMEA funding from Operation and Maintenance (O&M) and Procurement (PDW) appropriations to the RDT&E budget commensurate with the organization's transfer from Deputy Under Secretary of Defense Logistics & Material Readiness (DUSD(L&MR)) to Director, Defense Research & Engineering (DDR&E). The DMEA investment requirement (formerly PDW budget) is to procure new, replacement, and upgraded tools used for Engineering Analysis,

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Prototype Design, Verification and Integration, and Wafer Post Processing. DMEA expenses (formerly O&M budget) are for civilian labor (160 full time equivalent (FTE) in FY 2010), travel, training, communications, utilities, services, supplies, maintenance, etc.

FY 2009 Economic Assumptions: $.088M

FY 2009 Added Projects: Indium Based Nitrate Technology: $3.000M and UAV Situational Awareness System: $1.000M

FY 2010 Economic Assumptions: $.214M

FY 2010 Federally Funded Research and Development Center Reduction: $.019M

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COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
1: *Technology Development*	0.000	26.310	26.878	0.000	26.878	27.400	27.838	28.456	29.086	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Microelectronics Technology Development and Support funds are necessary to design, develop, and demonstrate microelectronics concepts, technologies and applications to extend the life of weapon systems and solve operational problems (e.g., reliability, maintainability, performance, and assured supply). This includes researching current and emerging microelectronics issues with a focus on warfighters' needs and providing for the development and long-term support structure necessary to ensure rapid prototyping, insertion, and support of microelectronics technologies into fielded systems, particularly as the technologies advance. DMEA maintains critical microelectronics design and fabrication skills to ensure that the DoD is provided with systems capable of ensuring technological superiority over potential adversaries. These funds provide an in-house technical staff of skilled and experienced microelectronics personnel working in state-of-the-practice facilities providing technical and application engineering support for the implementation of advanced microelectronics research technologies from reverse engineering through design, fabrication, test, assembly, integration and installation. DMEA provides an in-house capability to support these strategically important microelectronics technologies within the DoD with distinctive resources to meet DoD's requirements across the entire spectrum of technology development, acquisition, and long-term support. This includes producing components to meet the DoD's ultra-low volume, extended availability timeframe, needs for a trusted, assured, and secure supply of microelectronics. DMEA's capabilities make it a key resource in the intelligent and rapid application of advanced technologies to add needed performance enhancements in response to the newest asymmetric threats and to modernize aging weapon systems.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Technology Development Accomplishments/Plans	0.000	26.310	26.878	0.000	26.878
FY 2009 Accomplishments: Through projects and programs DMEA resources will achieve a cost savings/avoidance of over $450 million this year. DMEA will achieve over 90% of established program cost, schedule, and technical goals; maintain or exceed a program value responsibility ratio of $10 million per engineer; meet or exceed project requirements for quick reaction intelligence operations. Meet Trusted Assurance Program's accreditation timeframe goals.					

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: The DMEA will continue to design, develop, and demonstrate microelectronics concepts, advanced technologies, and applications to solve operational problems. DMEA will apply advanced technologies to add performance enhancements in response to the newest asymmetric threats and to modernize ageing weapon systems. The DMEA will accredit trusted sources and the Advanced Reconfigurable Manufacturing of Semiconductors (ARMS) foundry will provide a contingency means to ensure DoD can acquire critical trusted integrated circuits in a variety of process technologies and geometry node-sizes. *FY 2011 Base Plans:* The DMEA will continue to design, develop, and demonstrate microelectronics concepts, advanced technologies, and applications to solve operational problems. DMEA will apply advanced technologies to add performance enhancements in response to the newest asymmetric threats and to modernize ageing weapon systems. The DMEA will accredit trusted sources and the ARMS foundry will provide a contingency means to ensure DoD can acquire critical trusted integrated circuits in a variety of process technologies and geometry node-sizes.					
Accomplishments/Planned Programs Subtotals	0.000	26.310	26.878	0.000	26.878

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
2: *Other Congressional Adds (OCAs)*	36.392	44.287	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

An important part of the mission of the Defense Microelectronics Activity (DMEA) is to research current and emerging microelectronics issues with a focus on warfighters' needs. To this end, DMEA is integrally involved in the development of capabilities and resultant products based on technologies whose feasibility has been demonstrated but which have yet to be applied to real-world and military applications. DMEA's knowledge of varying military requirements across a broad and diverse range of combatant environments and missions-along with its unique technical perspective-allow it to develop, manage and implement novel microelectronic solutions to enhance mission capability. DMEA can then utilize these cutting-edge technology capabilities and products in the solutions it develops for its military clientele. After many years of performing analogous efforts, the technical experience, mission knowledge, and practical judgment that are gained from preceding efforts are often incorporated into subsequent technology maturation projects. In agreement with this mission, the following Congressionally directed programs are opportunities that have sufficient potential to merit development by DMEA.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
Congressional Add: 3-D Electronics and Power	2.394	4.775

FY 2009 Accomplishments:

The leap in the integration of devices is addressed by three-dimensional (3D) technology. Conventional electronics is based on two-dimensional (2D) planar processes, but this is becoming prohibitively expensive as well as a barrier to performance. By stacking devices and interconnecting them in a 3-D arrangement, a huge leap in functional density is possible. 3-D integration is a cornerstone of the coming revolution in electronics. 3-D electronics requires the development of a number of enabling technologies in order to realize broad adoption over a sustained period – of the order of 5-10 years. Critical enablers to fulfilling the vision of high density 3-D technology are new materials for electrical interconnects electromagnetic shielding and heat removal. New packaging

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
technologies are required to address 3-D electronics. The required fundamental technologies include etching and filling of through-wafer vias and bonding of chips and wafers with high interconnect density in a variety of configurations. Requirements are being developed in conjunction with the preliminary results from a FY 2008 RDT&E program, 3D Electronics, which is currently being executed and will be completed in the 2nd quarter of FY 2010. *FY 2010 Plans:* Complete the requirements development and award of the effort. Start on execution of requirements, including technology development in four areas: 3-D integration of optical and digital technologies; materials development for thermal management; materials development for 3-D wiring; and utilization of new interconnects and devices based on graphene.		
Congressional Add: Agile Joint Tactical Radio System (JTRS) Integrated Circuits *FY 2009 Accomplishments:* Complex wireless systems like the JTRS combine the need for system flexibility, high data throughput, and high security in a miniature, portable and power efficient package. The dramatic progress in radio frequency integrated circuits has enabled monolithic integration of many of the active components and miniaturization. The passive components such as filters, resonators, and antenna multiplexers have remained problematic. Advanced packaging and miniaturization of surface acoustic wave (SAW) and film bulk acoustic resonator (FBAR) filters has made it practical to include multiple front end configurations and selection by radio frequency (RF) switching. However, performance is limited by the insertion loss and cross talk of the switches. Micro electro mechanical system (MEMS) devices have shown some promise for high isolation, but speed and reliability remain issues. A tunable or switchable resonator would provide a single device capable of covering multiple bands, thus eliminating the need for multiple systems and enable entirely new architectures for wireless systems.	1.595	0.000

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
Proof of concept resonators that function from 1 to 3 GHz (JTRS Mobile Handset frequencies) have been designed and demonstration devices have been developed. Areas for improvement have been identified and upgrades initiated. Also, acoustic reflector substrates that are thermally compatible with barium strontium titanate (BST) thin films have been developed. FY 2010 Plans: Finish resonator improvements, investigate reliability characteristics of the resonator circuits, and start the development of a thin film, low loss tangent metal organic chemical vapor deposition (MOCVD) BST growth process.		
Congressional Add: C-Scout Container Security System *FY 2009 Accomplishments:* The feasibility of a trace detection system using microcantilever sensors to measure the concentrations of unlawful or hazardous materials in shipping containers has been demonstrated. This system is applicable for use not only in various types of shipping containers but also in handheld security devices and fixed asset applications such as airports and high profile buildings. The system was tested on its ability to measure trace concentrations of explosives, toxic chemicals, and biological agents such as those that might be used in a terrorist attack. The technology exceeded expectations in all test cases. Terrorist threat agents were detected at trace levels despite the use of less than optimal sensors. The system is easily adaptable to detect additional threat agents. Furthermore, prototype tests demonstrated the system's tolerance for common contaminants. Interface and communication with the Marine Asset Tagging and Tracking System (MATTS) was also demonstrated. MATTS is an important interface for future Department of Homeland Security (DHS) applications as it is used for transmission of test results in maritime shipping applications. The complete system includes a sensor array, electronics, power supply and air handling. The cost of the system in volume production would be a few hundred dollars. The goal of this effort is to develop a next-generation iteration of the C-Scout trace chemical detection system suitable for applications in International Organization for Standardization (ISO) shipping containers, reduce the system footprint, build prototypes and perform field testing.	2.394	0.000

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
Requirements are being developed in conjunction with the results from a FY 2008 RDT&E program, Self-Sensing Array Container Pre-Screening Sensor System, which was completed on 30-Jun-09. FY 2010 Plans: Accomplish advances in material science technology of carbon nanotube manufacturing and develop techniques for the preparation of thin film CSLs and integrate them into GDEs that are necessary for deployment in portable fuel cells. Modify single-walled carbon nanotube (SWNTs) with Platinum (Pt) nanoparticles and demonstrate the preparation of large area thin film CSLs and integrate them into GDEs.		
Congressional Add: Carbon Nanotube Thin Film Devices to Portable Power *FY 2009 Accomplishments:* Due to environmental concerns and the need to find alternatives to petroleum-based energy sources, there has been a resurgence of interest in fuel cells (FCs). It is now anticipated that hydrogen-based fuel cells will find application in the automobile industry and perhaps as sources of auxiliary power in residences and industrial buildings. The main drawback to this type of fuel cell is the lack of portability due to the need to safely store the hydrogen fuel which requires high pressures or low temperatures. There is a pressing need to develop portable sources of power where the use of batteries is impractical. Emergency response teams, the military, mobile satellite communications and remote surveillance operations are vital services which are in dire need of portable power beyond that which can be supplied by batteries. A promising approach involves the use of reformed methanol (RM) as a fuel and this has allowed the development of portable fuel cells. Methanol is a liquid at room temperature, and it is much easier to handle, package and store than hydrogen, making it a more practical fuel source. A reformed methanol fuel cell can combine the practical advantages of methanol fuel packaging, storage and delivery with the energy advantages of hydrogen, and allows for a smaller and lighter weight power source for portable electronic devices. Direct methanol fuel cell (DMFC) that utilizes methanol directly as the fuel without a reformer is an attractive option for portable power sources. However, this fuel cell offers lower power output due to various technical	1.595	1.592

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
limitations. Development of reliable and cost effective membrane electrode assembly (MEA) for portable applications requires nanoscale engineering of gas diffusion electrode (GDE) and catalyst support layer (CSL). Requirements are being developed in conjunction with the preliminary results from a FY 2008 RDT&E program, Carbon Nanotube Thin Film Near Infrared Detector, which will be completed during the 4th quarter of FY 2010. *FY 2010 Plans:* Accomplish advances in material science technology of carbon nanotube manufacturing and develop techniques for the preparation of thin film CSLs and integrate them into GDEs that are necessary for deployment in portable fuel cells. Modify single-walled carbon nanotube (SWNTs) with Platinum (Pt) nanoparticles and demonstrate the preparation of large area thin film CSLs and integrate them into GDEs.		
Congressional Add: Defense Command Integration Center *FY 2009 Accomplishments:* This effort is the third phase of a series of tasks to develop a Regional Defense Command Integration Center (RDCIC) (the Eisenhower Center for Homeland Security Studies) in Topeka, Kansas. The previous efforts involved analysis of the capabilities of available DoD equipment, processes and microelectronics systems for their ability to enhance the emergency response system and the development of the architectures and systems of the center. Further enhancements were then developed to meet the evolving challenges of disaster management and distributed mission operations at the center, including the application of advanced microelectronics technologies, techniques, architectures and software, and the evaluation of leveraging Command Post of the Future (CPOF) technologies for a highly inter-connected mobile emergency-response force. Now, there is an urgent need for the center to have a mobile command vehicle with remote Geographic Information System (GIS) and Public Affairs Officer (PAO) communications capabilities. Also required is the capability	0.878	0.000

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
to rapidly deploy two critical capabilities to support an incident commander at the scene of a local or regional disaster, event, or attack. Finally, an upgrade is needed to the technologies used for information sharing between The Adjutant General's (TAG) Regional Defense Command Integration Center, the Kansas Intelligence Fusion Center (KIFC), the Kansas Emergency Operations Center, and other TAG assets. Began development of requirements, design and development of a mobile incident command capability with communications and GIS capabilities to aid command and control and situational awareness for emergency responders. FY 2010 Plans: Finish the efforts started in FY 2009 and identify technologies and concepts for information sharing between the RDCIC Eisenhower Center and other key emergency nodes in Kansas.		
Congressional Add: Electronics and Materials for Flexible Sensors and Transponders (EMFST) *FY 2009 Accomplishments:* Flexible electronics is a technology area that has potential to stimulate many new applications for electronic systems ranging from sophisticated military products to consumer electronics. Flexible circuits have been used for many years in numerous applications to aid its miniaturization of electronic systems and assembly in unique form factors. Typically the flexible substrate will provide interconnects between two rigid circuit boards in which the electronic components are populated. These applications utilize standard surface mount technology to pick and place components on the printed circuit boards. A new generation of flexible electronics, however, holds promise for electronic systems that are able to conform to the shape of objects to which they are affixed or embedded. In its ultimate form, electronic circuits will be completely written on the substrates through a printed electronics method.	3.191	4.775

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
A Statement of Objectives has been developed in conjunction with the preliminary results from a FY 2008 RDT&E program, Flexible Sensor and Transponders, which will be completed in the 4th quarter of FY 2009. *FY 2010 Plans:* Investigate advanced manufacturing technologies suitable for low-cost flexible sensor applications. Develop methods for transfer of integrated circuit die directly from a wafer to a substrate. Investigate and develop proof of concept elements of roll to roll assembly processes to demonstrate feasibility for sensors on flexible substrates. Develop system level implementations of sensor arrays and passive transducer based Radio Frequency Identification Device (RFID) sensors. Develop and evaluate technology for energy harvesting, processing and communications functions.		
Congressional Add: Feature Size Migration at DMEA Advanced Reconfigurable Manufacturing of Semiconductors (ARMS) Foundry *FY 2009 Accomplishments:* This project is required to ensure that ARMS fabrication technology is able to handle the increased functional density of components on microchips that commercial manufacturers are continuing to develop and install in each new product that they produce, and to ensure that the foundry is able to convert from one process to another in a short period of time with a high yield of acceptable microcircuits during the first manufacturing run after process changeover. The ability to switch from one process to another is becoming more important as DMEA acquires an increasing number of processes to support the more complex integrated circuits used in each new weapon system. DMEA has established a comprehensive growth path for increasing functional density of its existing digital, analog and mixed signal processes. This feature size migration project will allow manufacturing runs to produce integrated circuits that are fabricated with upwards of five million individual devices on a single silicon chip, increasing their reliability, maintainability and performance. Using new processes to produce replacements for obsolete integrated circuits will also allow performance improvements to be made at no added cost. This project will also develop procedures for improving the first pass yield	1.995	2.387

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
of microcircuits based on newly acquired processes, and improving the repeatability of process runs for chips manufactured from archived processes so that there will not be a lag in achieving acceptable quality of parts produced when flexing from one process to another. A study was performed to provide a migratory path for the current ARMS foundry to technology nodes less than 0.25um and identify processes and/or toolings for multi-layer interconnect development activities at different technology nodes. A poly etching capability at nodes less than 0.25micro millimeter (um) has been developed. The poly etching capability accepts 150milimeter (mm) wafers but is has a conversion kit that can make the same tool capable of accepting 200mm wafers. The capability to perform die inspection and digitally capture submicron images for analysis was also acquired. Laboratory and foundry equipment was also transferred to DMEA from the former National Security Agency (NSA) foundry. *FY 2010 Plans:* To be determined.		
Congressional Add: High Performance Tunable Materials *FY 2009 Accomplishments:* The realization of high performance tunable films will radically improve the tuning range and lower the loss of multi-octave tunable circuits for the pre-selectors of software defined radios and create the truly wideband, multi-mode radios long sought for direct communications across a variety of applications. Combining existing tunable material expertise with combinatorial development expertise and materials knowledge, a highly factored experimental program can quickly and reliably investigate thousands of material combinations to expose the optimum materials for tunable applications which are often overlooked by cruder experimental approaches. The key material performance areas that need to be addressed include a tuning range of 6:1 or better, a loss tangent below 0.003, and reliability greater than 100,000 hours at 125C (Centigrade).	2.393	3.581

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
A Statement of Objectives has been developed, and it has been solicited on a Broad Agency Announcement where multiple bidders have come forward with proposals. *FY 2010 Plans:* Investigate high-throughput combinatorial methodologies for rapid discovery, screening, and optimization of advanced tunable materials. Perform research with a goal of developing materials with enhanced tunability, lower RF losses, and greater reliability. Develop an approach for migrate current tunable material processing to a silicon wafer substrate.		
Congressional Add: Scalable Topside Array Radar Demonstrator *FY 2009 Accomplishments:* The Navy's existing surface ship radar systems are primarily monolithic in function, requiring replacing or extensively upgrading radar systems for newly defined threats. Recent innovations in DOD airborne radar development promise lower size, weight, and cost and are adaptable modular designs that can be quickly and inexpensively scaled to meet the Navy's shipboard needs. The Navy needs an assessment of elements of applicable technology and support refinements necessary to reduce the cost/risk of next generation surface ship radar systems. Such an effort would directly support the Navy's plan for an aggressive radar competition to help reduce the cost of next generation platforms such as the Next Generation (CG(X)) cruiser. Conducted studies and analysis on high power amplifier (HPA) monolithic microwave integrated circuits (MMICs), transmit/receive (T/R) modules, receiver multi chip modules (MCM), and beam steering control modules (BSCM) for improvements in next generation radar system performance. Developed a prioritized list of candidate components for development and fabrication to validate the analyses. FY 2010 Plans: Build and test the selected candidate components to validate the findings of the analyses.	0.798	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603720S: *Microelectronics Technology Development and Support (DMEA)*	**PROJECT** 2: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
Congressional Add: Semiconductor Photomask Technology Infrastructure Initiative *FY 2009 Accomplishments:* Semiconductor Photomask Technology Development otherwise known as the Advanced Domestic Mask Inspection Tools and Technology (ADMITT) program are accelerating the development of state-of-the-art mask making tools and also the formation of a domestic mask blank source for future applications in the below 45 nanometer regime. Specific accomplishments include development of beta prototype inspection hardware necessary to evaluate the optical quality of a mask and documented reticle inspection technology candidates that may meet 22nanometer (nm) and 16nm wafer node sizes. An additional (non-mask) inspection need has emerged – the qualification of the patterns written by e-beam pattern generators directly on semiconductor wafers – abbreviated as MLL (Mask Less Lithography). This technology is currently being investigated and was included in the ADMITT investigation tasks. Extend further the capabilities of the 6XX generation inspection tools to meet the needs for advanced 193nm immersion masks and Extreme Ultraviolet Lithography (EUVL) pilot-production masks (13.5nm). Complete System Requirements Document (SRD) for all the hardware and software to inspect immersion masks. *FY 2010 Plans:* Set all system level parameters for masking techniques required using EUVL and Nano-Imprint Lithography (NIL) node geometries. This effort will begin to define all the requirements for producing equipment to manufacture masks that will produce die with geometries of less than 22nm.	2.393	1.592
Congressional Add: Smart Bomb Millimeter Wave Radar Guidance System	1.995	2.308

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603720S: *Microelectronics Technology Development and Support (DMEA)*	PROJECT 2: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
FY 2009 Accomplishments: Military tactical units require an all-weather, miniature, targeting Planned Position Indication (PPI), synthetic aperture radar (SAR) to target smart bombs to a target area in day, night and adverse weather conditions. Fuses currently exist in a dual mode system, using laser and infrared (IR) guidance, but there is a need for target preset in terms of latitude and longitude. This enhanced, third type of guidance may be implemented using a radar solution. This approach will enhance defense of the United States and Overseas Contingency Operation missions by leveraging existing bombs and targeting assets. The use of smart bombs for all missions, using the radar targeting capability will greatly reduce collateral damage and ensure that critical targets are neutralized. Requirements have been developed. The Small Business Administration approved DMEA's acquisition plan and authorized DMEA to negotiate directly with Global Technical Systems (GTS), Inc. *FY 2010 Plans:* Design, develop, integrate, test and demonstrate a Smart Bomb Microwave Radar Targeting System.		
Congressional Add: Sprintonics Memory Storage Technology *FY 2009 Accomplishments:* The control and understanding of materials at the nanoscale holds vast potential for the transformation of current information, communications and medical technologies. The twin demands of structural and functional perfection at the nanoscale—with integration into systems of increasing complexity —mandates alternative materials and technological solutions. This can be achieved through the control of charge, spin and light in nanoscale architectures to create a new set of electronic, photonic, spintronic and mechanical devices and systems. Such transformations hold profound, long-ranging impact for the nation's defense technologies. A strategic alliance that couples the strengths of an integrated and comprehensive University-based research program with commercial and national defense industries is vital to fostering this knowledge in a domestic environment. Key efforts that	2.393	2.785

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603720S: *Microelectronics Technology Development and Support (DMEA)*	PROJECT 2: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
require extensive research in this area are 1.) the demonstration of the advantages of forthcoming spintronic technologies and advanced electronics interconnect technologies through the incorporation of Magnetic Random Access Memory (MRAM) technology, and 2.) the development of electrically accessible arrays—from promising candidate nanomaterial structures—that can be integrated into Complementary Metal Oxide Semiconductors(CMOS) circuitry. Requirements are being developed in conjunction with the results from ongoing FY 2007 and FY 2008 RDT&E programs of the same name. *FY 2010 Plans:* Complete the requirements development and award of the effort. Start on execution of requirements including the demonstration of a practical nanomagnetic logic system, which will be superior to conventional technologies, via focused ion beam (FIB)-based rapid prototyping and state-of- the-art spinstand testing, and the investigation of applications of carbon materials in spintronic devices.		
Congressional Add: Superlattice Nanotechnology *FY 2009 Accomplishments:* Recent developments in superlattice nanotechnology have shown that extraordinary advances in power, frequency, heat consumption, radiation shielding, and reliability can be achieved in military electronics. The superlattice technology is expected to facilitate the development of a large silicon carbide (SiC) epitaxial substrate with processes comparable in cost to standard silicon wafers. This cost reduction will impact the use of SiC devices in military applications such as high power switches for power distribution (free electron lasers, high power radars, electromagnetic gun, electromagnetic launchers, solid state lasers, and commercial), high power radio frequency transistors, light emitting diodes, and radiation hard electronics. During earlier phases of this program, processes for the fabrication of SiC films on silicon substrates were demonstrated and samples were successfully fabricated and characterized.	1.995	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603720S: *Microelectronics Technology Development and Support (DMEA)*	PROJECT 2: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
Films of SiC have been grown. Employed molecular beam epitaxy (MBE) to grow high quality aluminum nitride (AlN) films on sapphire that are of sufficient quality to permit the subsequent MBE growth of high quality SiC films on AlN on sapphire. Employed atomic layer deposition (ALD) growth techniques to grow SiC on (111) Si. FY 2010 Plans: Employ Metal Oxide Chemical Vapor Deposition (MOCVD) growth techniques to grow epitaxial AlN on (111) Si. Analyze the SiC films produced via MBE, ALD, and MOCVD growth to include structure, structural quality, strain, surface smoothness, crystallographic purity, chemical purity, doping levels, carrier transport properties, and effective energy gap.		
Congressional Add: Tunable Micro Radio for Military Systems *FY 2009 Accomplishments:* Government advanced radio programs have suffered significant delays as more and more capabilities have been designed into government systems. Radios are currently in 85% of military systems and will continue to be a core element of future systems. As radio requirements continue to increase, the number of components needed in the radio frequency (RF) section of the radio (known as the front-end) has grown dramatically and has become complex and difficult to integrate. This is because RF integration technology has not evolved the same pace as digital technology. As a result, the front-end is increasingly becoming the bottleneck in realizing advanced radio solutions. A tunable RF system that behaves as an "RF Microprocessor" in that a single module can manage multiple radio requirements on a multi-band and multi-mode basis is needed urgently. A Statement of Objectives has been developed, and it has been solicited on a Broad Agency Announcement from which a promising proposal has been submitted. *FY 2010 Plans:* Investigate packaging technology for integrated RF systems with a focus on reduced size and weight. Propose RF design and simulation tools to aid the design process. Investigate and develop	4.787	5.570

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603720S: *Microelectronics Technology Development and Support (DMEA)*	PROJECT 2: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
a system-level approach to design modern radios for mobile applications with a focus on reduced component cost, size, and weight reduction while increasing system performance. Develop and simulate proof of concept integrated circuit designs for individual RF technology blocks. Develop thermal and mechanical stress models for integrated RF system packaging to evaluate predictive reliability performance for various packaging concepts under consideration.		
Congressional Add: X-Band/W-Band Solid State Power Amplifier	1.596	0.995
FY 2009 Accomplishments: Specific and timely radar tactical images are required to meet the challenge of highly asymmetrical threats on a global basis in support of the DoD Mission and in assisting in the addressing terrorism. Critical search, target identification, and forward looking imaging at low altitudes and on landing in adverse weather and day/night conditions is required for force protection and situation awareness, and during ingress and egress operations. The reliability and availability of systems critical to tactical warfare is necessary for the success of missions and conserving lives. The use of Traveling Wave Tubes (TWT) in radar systems has been long standing and has a relatively short Mean Time Between Failure (MTBF). The use of semiconductors has increased the reliability, availability, and MTBF of systems, over the use of vacuum tubes. The military has a great need for a solid state Power Amplifiers for both X-band radars and W-band radars. These power amplifiers must be high powered, small in size, lightweight, and have a very high MTBF. In order to achieve these goals, the extensive use of microelectronic technology is paramount. Solid state chips and surface mount devices must be integrated in order to reduce the size and weight. Requirements have been developed. The Small Business Administration approved DMEA's acquisition plan and authorized DMEA to negotiate directly with Global Technical Systems (GTS), Inc. *FY 2010 Plans:* Design, develop and test a solid state power amplifier at X-Band/W-Band to replace the currently used TWT, to provide a high Mean Time Before Replacement.		

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603720S: *Microelectronics Technology Development and Support (DMEA)*	PROJECT 2: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
Congressional Add: UAV Situational Awareness Systems *FY 2009 Accomplishments:* The DoD has a need to integrate an Unmanned Aerial Vehicle (UAV) Situational Awareness System, to improve integration and Joint Services collaboration supporting unmanned systems, as well as achieve greater interoperability between system controls, communications, data products, and data links on unmanned systems. The UAV Situational Awareness System will provide the awareness of the UAV's flight environment to the UAV in-flight controller, which is an extension of the Automatic Pilots that are commonly used aboard human piloted aircraft. In the human piloted aircraft, the pilot or aviator provides the situational awareness function. For a UAV flying autonomously, an artificial awareness system is needed to replace the pilot. In order to achieve these goals in a UAV, the extensive use of microelectronic techniques is paramount in order to reduce the size and weight. Commercial-Off-The-Shelf (COTS) sensor technology and computational systems would be utilized to the greatest extent possible but the system design will require some custom hardware and software. The system will be tested in a manned aircraft, for proof of concept. Requirements have been researched, developed, and definitized. FY 2010 Plans: Develop a system that will fuse data from sensor systems such as radar, infrared (IR), and optical sensors, with global positioning system (GPS) maps and global information, in near real-time. Create a capability for three dimensional location of targets and obstacles to result in a database that is available to provide inputs to the flight control director.	1.000	0.000
Congressional Add: Indium-Based Nitride Devices for Advances Integrated Systems *FY 2009 Accomplishments:* Indium-based Nitride devices promise higher power and greater efficiency than current technologies. They have the potential for insertion into a wide and diverse range of military applications including	3.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603720S: *Microelectronics Technology Development and Support (DMEA)*	PROJECT 2: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
radar, communications, electronic warfare, non-lethal active denial systems, and high frequency space-based systems and advanced optical systems. With rare exceptions, all advanced United States (US) military systems are looking for higher levels of component integration to achieve cost benefits as well as performance gains. Indium-based Nitride devices can continue to extend the performance advantages available to US military radio frequency (RF) systems that are looking for more performance than conventional Gallium Arsenide (GaAs) technologies can deliver. To date, the Gallium Nitride (GaN) based family of devices has been limited without the inclusion of Indium Gallium Nitride (InGaN) and Indium Aluminum Nitride (InAlN) to maximize both radio frequency (RF) and electro-optic (EO) device performance. However, for these materials to be widely adopted their efficiency will have to be improved and their costs significantly reduced. Although higher performance is key to many systems, it must often come with an ever increasing level of integration. Maximum cost benefits are achieved through highly integrated circuits when part counts are reduced and assembly labor & test time are minimized. This is best evidenced by the progression witnessed in commercial electronics. To this end, the development of advanced nitride based semiconductors must take into account a highly integrated end state. Requirements have been developed. The effort was solicited for fair opportunity on the Advanced Domestic mask inspection tools and technology (ATSP3) Indefinite Delivery Indefinite Quantity (IDIQ) contract vehicle. A proposal is currently being evaluated. FY 2010 Plans: Develop the material and device technologies required for future RF and electro-optical systems. Develop performance characteristic improvements for advanced Indium-based Nitride materials and devices and use them to demonstrate devices and highly integrated circuits designed for a wide range of military applications, including many conventional and innovative device structures.		
Congressional Add: AESSA Technology Insertion Program	0.000	2.387

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603720S: *Microelectronics Technology Development and Support (DMEA)*	**PROJECT** 2: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
FY 2010 Plans: To be determined.		
Congressional Add: End to End Semi Fab Alpha Tool *FY 2010 Plans:* To be determined.	0.000	1.592
Congressional Add: Heterogeneous Gallium Nitride/Silcon Microcircuit Technology *FY 2010 Plans:* To be determined.	0.000	1.592
Congressional Add: Superconducting Quantum Information Technology *FY 2010 Plans:* To be determined.	0.000	0.796
Congressional Add: Shipping Container Security System Field Evaluation *FY 2010 Plans:* To be determined.	0.000	3.581
Congressional Add: Vehicle and Dismount Exploitation Radar (VADER) *FY 2010 Plans:* To be determined.	0.000	3.979

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603720S: *Microelectronics Technology Development and Support (DMEA)*	**PROJECT** 2: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
Congressional Adds Subtotals	36.392	44.287

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency	DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603805S: *Dual Use Technology (DUAP) /Commercial Technology for Maintenance Activities (CTMA)*

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	4.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
1: *CTMA*	4.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Commercial Technology and Maintenance Activities (CTMA) program is a cooperative agreement between National Center for Manufacturing Sciences (NCMS) and the Deputy Under Secretary of Defense for Logistics and Materiel Readiness to co-sponsor technology development, deployment and validation with DoD organic maintenance activities and NCMS member companies. NCMS is a not-for-profit collaborative research consortium of North American corporations. It is the largest cross-industry consortium in the United States (240 member companies with an annual Reseach and Development (R&D) project portfolio exceeding $80 million). The primary goals of the program are to transfer best commercial technologies and best practices to the Department of Defense (DoD) maintenance activities via NCMS member companies. By partnering with NCMS members, the DoD maintenance activities are able to assess the benefits of new manufacturing technologies in their own facilities. They work with industry leaders in solving manufacturing problems through collaboration. The Department of the Army, Defense Supply Service Washington (DSSW) is the contracting office for the program. The statement of work in the CTMA contract, DASW01-98-0002, remains essentially unchanged since the original contract was issued in FY 1998, and subsequent year funding has been added to the contract by modification.

B. Program Change Summary ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	4.000	0.000	0.000	0.000	0.000
Total Adjustments	4.000	0.000	0.000	0.000	0.000
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	4.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603805S: *Dual Use Technology (DUAP) / Commercial Technology for Maintenance Activities (CTMA)*	PROJECT 1: *CTMA*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
1: *CTMA*	4.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Commercial Technology and Maintenance Activities (CTMA) program is a cooperative agreement between National Center for Manufacturing Sciences (NCMS) and the Deputy Under Secretary of Defense for Logistics and Materiel Readiness to co-sponsor technology development, deployment and validation with DoD organic maintenance activities and NCMS member companies. NCMS is a not-for-profit collaborative research consortium of North American corporations. It is the largest cross-industry consortium in the United States (240 member companies with an annual Reseach and Development (R&D) project portfolio exceeding $80 million). The primary goals of the program are to transfer best commercial technologies and best practices to the Department of Defense (DoD) maintenance activities via NCMS member companies. By partnering with NCMS members, the DoD maintenance activities are able to assess the benefits of new manufacturing technologies in their own facilities. They work with industry leaders in solving manufacturing problems through collaboration. The Department of the Army, Defense Supply Service Washington (DSSW) is the contracting office for the program. The statement of work in the CTMA contract, DASW01-98-0002, remains essentially unchanged since the original contract was issued in FY 1998, and subsequent year funding has been added to the contract by modification.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Commercial Technology and Maintenance Activities Accomplishments/Plans	4.000	0.000	0.000	0.000	0.000
FY 2009 Accomplishments: Completed the FY 2009 project plan and are formulating the detailed projects accordingly. As the project matures, expect to begin seeing tangible benefits to the Department of Defense (DoD) maintainers within 18 months.					
Accomplishments/Planned Programs Subtotals	4.000	0.000	0.000	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603805S: *Dual Use Technology (DUAP) / Commercial Technology for Maintenance Activities (CTMA)*	**PROJECT** 1: *CTMA*

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Repair Cost Reduction-DoD Wide, Total Repair Cycle Days Eliminated, Total Industry Investment Obtained, Number of Industry Technology Providers Involved, Number of DoD Maintenance Activities Involved, Number of CTMA Projects Funded, Funding Obligation Dates, Contract Award Dates.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency	DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 6: *RDT&E Management Support*	R-1 ITEM NOMENCLATURE PE 0605502S: *Small Business Innovative Research (SBIR)*

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	3.230	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
1: *Small Business Innovative Research (SBIR)*	3.230	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Defense Logistics Agency's (DLA's) ability to deliver Americans the right logistics solution in every transaction requires more than successful management of the Department's wholesale supplies and suppliers. It requires supply chain excellence. Our military's ability to generate and sustain combat readiness indefinitely, anywhere on the globe requires that DLA-managed materiel flow seamlessly and as needed from the nation's industrial base to where it is ultimately used.

DLA's Small Business Innovative Research (SBIR) program seeks to solicit high-risk research and development proposals from the small business community. All selections shall demonstrate and involve a degree of technical risk where the technical feasibility of the proposed work has not been fully established. Phase I proposals should demonstrate the feasibility of the proposed technology and the merit of a Phase II for a prototype or at least a proof-of-concept demonstration. Phase II selections will be strongly influenced on future market possibilities and commercialization potential demonstrated.

B. Program Change Summary ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	3.230	0.000	0.000	0.000	0.000
Total Adjustments	3.230	0.000	0.000	0.000	0.000
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	3.230	0.000			

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 6: *RDT&E Management Support*	R-1 ITEM NOMENCLATURE PE 0605502S: *Small Business Innovative Research (SBIR)*	PROJECT 1: *Small Business Innovative Research (SBIR)*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
1: *Small Business Innovative Research (SBIR)*	3.230	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Defense Logistics Agency's (DLA's) ability to deliver Americans the right logistics solution in every transaction requires more than successful management of the Department's wholesale supplies and suppliers. It requires supply chain excellence. Our military's ability to generate and sustain combat readiness indefinitely, anywhere on the globe requires that DLA-managed materiel flow seamlessly and as needed from the nation's industrial base to where it is ultimately used.

DLA's Small Business Innovative Research (SBIR) program seeks to solicit high-risk research and development proposals from the small business community. All selections shall demonstrate and involve a degree of technical risk where the technical feasibility of the proposed work has not been fully established. Phase I proposals should demonstrate the feasibility of the proposed technology and the merit of a Phase II for a prototype or at least a proof-of-concept demonstration. Phase II selections will be strongly influenced on future market possibilities and commercialization potential demonstrated.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
SBIR Accomplishments/Plans	3.230	0.000	0.000	0.000	0.000
FY 2009 Accomplishments: DLA's SBIR Topic for FY 2009 focused on implementing Executive Order 13329, encouraging innovation in manufacturing. Eight Phase I contract awards were awarded in such diverse areas as: 1.) development of selectively-tuned molecular probes as premature cure indicators for pre-coated fasteners used in aircraft structures; 2.) physics-based modeling of high speed machining of difficult nickel alloys used in turbine engines; 3.) advanced processing of powder based lightweight materials; 4.) hybrid molding technologies based on rammed graphite for lower cost titanium castings; 5.) a Long Range Ball Bar for rapidly characterizing the work volume of machine tools; 6.)a machine tool chatter					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 6: *RDT&E Management Support*	R-1 ITEM NOMENCLATURE PE 0605502S: *Small Business Innovative Research (SBIR)*	PROJECT 1: *Small Business Innovative Research (SBIR)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
detection and avoidance system; 7.) an innovative positioning system for implementing adaptive force grinding techniques for rolling element bearing manufacture; 8.) use nanotechnology for coating techniques for viewing windows on machine tools that are resistant to chip abrasion and cutting tool fluids. Two Phase II awards were awarded for 1.) an innovative method for internal grinding and 2.) a physics-based modeling for drilling of stacked composite aerospace panels.					
Accomplishments/Planned Programs Subtotals	3.230	0.000	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency	DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0607713S: *Joint Air Logistics Information System- Next Generation (JALIS-NG)*

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	0.733	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
1: *JALIS-NG*	0.733	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Complete development and transition of joint relevant technologies that improve warfighter support while reducing cost via improved precision, visibility and efficiency of the Department of Defense's (DoDs) supply chain.

B. Program Change Summary ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.733	0.000	0.000	0.000	0.000
Total Adjustments	0.733	0.000	0.000	0.000	0.000
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.733	0.000			
• SBIR/STTR Transfer	0.000	0.000			

Change Summary Explanation

JALIS-NG is a reprogramed project from PE 0603713S, United States Transportation Command (USTRANSCOM): $.733M

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0607713S: *Joint Air Logistics Information System- Next Generation (JALIS-NG)*	PROJECT 1: *JALIS-NG*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
1: *JALIS-NG*	0.733	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Complete development and transition of joint relevant technologies that improve warfighter support while reducing cost via improved precision, visibility and efficiency of the Department of Defense's (DoDs) supply chain.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
JALIS-NG Accomplishments/Plans	0.733	0.000	0.000	0.000	0.000
FY 2009 Accomplishments: Complete and transition the Joint Air Logistics Information System – Next Generation (JALIS-NG) prototype and its infrastructures; this includes improvements and upgrades to the Scheduler's Workbench, enhanced Request Validation Routing capabilities, and optimizing command and control processes related to the requesting, validating, scheduling, and monitoring of worldwide operations support airlift missions and a 20% increase in fleet asset utilization..					
Accomplishments/Planned Programs Subtotals	0.733	0.000	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0607713S: *Joint Air Logistics Information System- Next Generation (JALIS-NG)*	**PROJECT** 1: *JALIS-NG*

E. Performance Metrics

Complete transition JALIS-NG tool plus focus research and development to address warfighting requirements.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency										DATE: February 2010	
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)*							
COST ($ in Millions)	**FY 2009 Actual**	**FY 2010 Estimate**	**FY 2011 Base Estimate**	**FY 2011 OCO Estimate**	**FY 2011 Total Estimate**	**FY 2012 Estimate**	**FY 2013 Estimate**	**FY 2014 Estimate**	**FY 2015 Estimate**	**Cost To Complete**	**Total Cost**
Total Program Element	53.040	46.271	21.798	0.000	21.798	22.136	22.391	22.755	23.128	Continuing	Continuing
1: *Combat Rations (CORANET)*	1.725	1.817	1.924	0.000	1.924	1.958	1.984	2.018	2.051	Continuing	Continuing
2: *Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Reseach Network)*	3.857	3.946	4.220	0.000	4.220	4.294	4.350	4.423	4.501	Continuing	Continuing
3: *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*	2.546	2.453	2.607	0.000	2.607	2.626	2.644	2.690	2.736	Continuing	Continuing
4: *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*	1.182	1.145	1.230	0.000	1.230	1.252	1.268	1.290	1.313	Continuing	Continuing
5: *Material Acquisition Electronics (MAE)*	10.372	10.065	10.839	0.000	10.839	11.030	11.172	11.364	11.560	Continuing	Continuing
6: *Battery Network (BATTNET)*	0.000	0.981	0.978	0.000	0.978	0.976	0.973	0.970	0.967	Continuing	Continuing
7: *Other Congressional Adds (OCAs)*	33.358	25.864	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Logistics Agency (DLA) Industrial Preparedness Manufacturing Technology (IP ManTech) Program supports the development of a responsive, world-class manufacturing capability to affordably meet the warfighters' needs throughout the defense system life cycle. IP ManTech: Provides the crucial link between invention and product application to speed technology transitions. 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),

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency	DATE: February 2010
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)*

and Material Acquisition Electronics (MAE) and Battery Nework (BATTNET). As well as, Other Congressional Add (OCA) programs that are Congressionally Directed efforts.

B. Program Change Summary ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	55.280	20.514	0.000	0.000	0.000
Current President's Budget	53.040	46.271	21.798	0.000	21.798
Total Adjustments	-2.240	25.757	21.798	0.000	21.798
• Congressional General Reductions		-0.136			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		26.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	-1.678	0.000			
• SBIR/STTR Transfer	-0.562	0.000			
• FY 2011 Other Program Changes	0.000	0.000	21.798	0.000	21.798
• FY 2010 Economic Assumptions	0.000	-0.009	0.000	0.000	0.000
• FY 2010 Federally Funded Research and Development Center Reduction	0.000	-0.098	0.000	0.000	0.000

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2009	FY 2010
Project: 7: *Other Congressional Adds (OCAs)*		
Congressional Add: *Cellulosic Derived Biofuels Research Project*	3.988	0.000
Congressional Add: *Cooper Based Casting Technology Applications (CBCT)*	2.792	1.592
Congressional Add: *Improved Collapsible Urethane Fuel Storage (ICU-FST)*	1.596	0.000
Congressional Add: *Industrial Base Innovation Fund*	19.148	19.895
Congressional Add: *Northwest Defense Manufacturing Initiative*	1.596	1.989
Congressional Add: *Ultra-high Strength Steele for Landing Geer*	1.995	1.592
Congressional Add: *Vet-Biz Initiative for National Sustainment (VINS)*	1.995	0.796

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency	DATE: February 2010
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)*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2009	FY 2010
Congressional Add: *Wiring Integrity Technology*	0.248	0.000
Congressional Add Subtotals for Project: 7	33.358	25.864
Congressional Add Totals for all Projects	33.358	25.864

Change Summary Explanation

FY 2009- 26 PA OMNIBUS Reprogramming Action: $1.528M

FY 2009 Economic Assumptions: $.150M

FY 2010 Economic Assumptions: $.223M

FY 2010 Federally Funded Research and Development Center Reduction: $.020M

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
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)*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
1: *Combat Rations (CORANET)*	1.725	1.817	1.924	0.000	1.924	1.958	1.984	2.018	2.051	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

In FY 2008, the Defense Supply Center Philadelphia (DSCP) sold $4.45 billion 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 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, United States Department of Agriculture (USDA), Food and Drug Administration (FDA), DLA, DSCP and academia to research and transition improved technologies for operational rations.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Combat Rations Accomplishments/Plans	1.725	1.817	1.924	0.000	1.924
FY 2009 Accomplishments: Sonic seal transitioned into the final ration producer. New retort rack material made available to producers. Quality improvements to MRE components increase acceptability.					
FY 2010 Plans: Explore processes to infuse vitamins into components. Expand the availability of packaging material and aide in the development of new formulas to shelf stable products.					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
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)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: Research new MRE packaging configuration. Improve the thermo-processing process. Streamline inspection procedures.					
Accomplishments/Planned Programs Subtotals	1.725	1.817	1.924	0.000	1.924

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

CORANET is a community-of- practice, which includes all military and federal organizations involved in the development, procurement and oversight of combat rations, multiple university research partners, and the combat ration manufacturers themselves. The major objective of this program is to perform short term projects that ensure surge production capability, maintain food safety, improve the quality and produce ability of combat rations, and/or help make combat rations affordable. As a result the anticipated Percent of completed demonstration programs transitioning per year would be 50%.

Strategic Plan Long-term Performance Targets – The average technical readiness level of a CORANET project is 6.5. The likelihood of maintaining the 50% is good.

Annual Performance Targets – FY 2010: 50% of programs transitioning.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Defense Logistics Agency			DATE: February 2010
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)*	

Support ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	0.020	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
b. Manufacturing Process Support Costs	C/CPFF	Dairy Management Incorporated Des Plaines, Illinois	0.020	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
c. Manufacturing Process Support Costs	C/CPFF	Master Packaging Tampa, Florida	0.020	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
d. Manufacturing Process Support Costs	C/CPFF	Michigan State University East Lansing, Michigan	0.197	0.200	Dec 2009	0.250	Dec 2010	0.000		0.250	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	1.917	0.850	Dec 2009	0.750	Dec 2010	0.000		0.750	Continuing	Continuing	Continuing
f. Manufacturing Process Support Costs	C/CPFF	SOPAKO, Incorporated Mullins, South Carolina	0.147	0.026	Dec 2009	0.032	Dec 2010	0.000		0.032	Continuing	Continuing	Continuing
g. Manufacturing Process Support Costs	C/CPFF	University of Illinois	0.035	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Defense Logistics Agency			DATE: February 2010
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)*	

Support ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
		Urbana, Illinois											
h. Manufacturing Process Support Costs	C/CPFF	University of Tennessee Knoxville, Tennessee	0.523	0.200	Dec 2009	0.250	Dec 2010	0.000		0.250	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	0.876	0.250	Dec 2009	0.250	Dec 2010	0.000		0.250	Continuing	Continuing	Continuing
j. Manufacturing Process Support Costs	C/CPFF	Cadillac Products Incorporated Troy, Michigan	0.035	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
k. Manufacturing Process Support Costs	C/CPFF	Ohio State University Research Foundation Columbus, Ohio	0.035	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
l. Manufacturing Process Support Costs	C/CPFF	Oregon Freeze Dry Incorporated Albany, Oregon	0.035	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
m. Manufacturing Process Support Costs	C/CPFF	Research and Development Associates	0.083	0.100	Dec 2009	0.150	Dec 2009	0.000		0.150	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Defense Logistics Agency			DATE: February 2010
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)*	

Support ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
		San Antonio, Texas											
n. Manufacturing Process Support Costs	C/CPFF	Sterling Foods, Limited San Antonio, Texas	0.035	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
o. Manufacturing Process Support Costs	C/CPFF	Virginia Polytechnic Institute and State University Blacksburg, Virginia	0.117	0.100	Dec 2009	0.100	Dec 2010	0.000		0.100	Continuing	Continuing	Continuing
p. Manufacturing Process Support Costs	C/CPFF	Washington State Universtiy Pullman, Washington	0.051	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
q. Manufacturing Process Support Costs	C/CPFF	Logistics Management Institute McLean, Virginia	0.060	0.091	Dec 2009	0.142	Dec 2010	0.000		0.142	Continuing	Continuing	Continuing
		Subtotal	4.206	1.817		1.924		0.000		1.924			

Remarks

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Defense Logistics Agency			DATE: February 2010
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)*	

	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	4.206	1.817		1.924		0.000		1.924			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Defense Logistics Agency			DATE: February 2010
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)*	

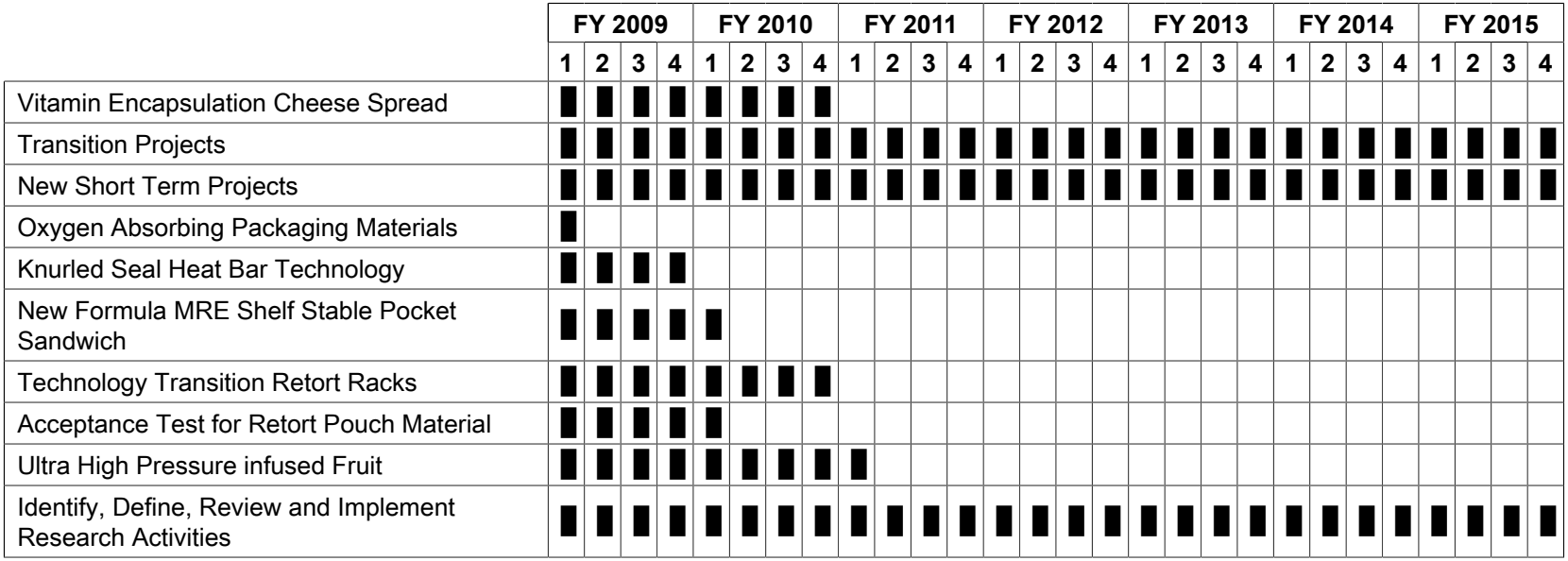

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0708011S: *Industrial Preparedness Manufacturing Technology (IP ManTech)*	**PROJECT** 1: *Combat Rations (CORANET)*

Schedule Details

	Start		End	
Event	**Quarter**	**Year**	**Quarter**	**Year**
Vitamin Encapsulation Cheese Spread	1	2009	4	2010
Transition Projects	1	2009	4	2015
New Short Term Projects	1	2009	4	2015
Oxygen Absorbing Packaging Materials	1	2009	1	2009
Knurled Seal Heat Bar Technology	1	2009	4	2009
New Formula MRE Shelf Stable Pocket Sandwich	1	2009	1	2010
Technology Transition Retort Racks	1	2009	4	2010
Acceptance Test for Retort Pouch Material	1	2009	1	2010
Ultra High Pressure infused Fruit	1	2009	1	2011
Identify, Define, Review and Implement Research Activities	1	2009	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
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 Reseach Network)*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
2: *Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Reseach Network)*	3.857	3.946	4.220	0.000	4.220	4.294	4.350	4.423	4.501	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The Department of Defense, through the Defense Logistics Agency, purchased $2.34 billion of clothing and textile items in FY 2008. 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 manufacturing and information technologies and process reengineering to the end-to-end management of clothing and individual equipment (CIE). CDUM is focusing on item level radio frequency identification device (RFID) tagging to provide rapid response, asset visibility and improved agility tailored to the supply and sustainment of forces directly at the strategic and tactical levels of operations. This technology solution has been demonstrated to transform inventory control, materiel management, distribution, and warehousing so that critical Clothing and Textiles (C&T) items can be automatically tracked and item information available throughout the supply chain to include not only the manufacturers, but the upstream fabric and materials suppliers. Additional CDUM initiatives will include Army/DSCP shared asset visibility, Central Issue Facility (CIF) process reengineering and improved product performance and quality improvement.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Customer Driven Uniform Manufacturing Accomplishments/Plans	3.857	3.946	4.220	0.000	4.220
FY 2009 Accomplishments: Item Level RFID Pilots at CIE Manufacturing Locations. CDUM Shade Instrument Correlation Study.					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
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 Reseach Network)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: Supply Chain Process Reengineering and Advanced Technology for Military Clothing Shared Services Asset Visibility and Central Issue Facility Process Reengineering Manufacturing Methods for Product Performance and Quality Improvement. *FY 2011 Base Plans:* CDUM II New Initiatives.					
Accomplishments/Planned Programs Subtotals	3.857	3.946	4.220	0.000	4.220

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.

The documented inventory adjustment reduction is from 6.64% to .2% of total inventory. Cost benefit analyses are performed on CDUM initiatives on an ongoing basis.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Defense Logistics Agency		DATE: February 2010
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 Reseach Network)*

Support ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	Production Data Integration Technologies Long Beach, California	5.400	1.400	Mar 2010	1.500	Mar 2010	0.000		1.500	Continuing	Continuing	Continuing
b. Manufacturing Process Support Costs	C/CPFF	AdvanTech Annapolis, Maryland	4.000	1.267	Mar 2010	1.300	Mar 2011	0.000		1.300	Continuing	Continuing	Continuing
c. Manufacturing Process Support Costs	C/CPFF	Human Solutions NA, Incorporated Dearborn, Michigan	0.600	0.150	Mar 2010	0.150	Mar 2011	0.000		0.150	Continuing	Continuing	Continuing
d. Manufacturing Process Support Costs	BPA	Logistics Management Institute McLean, Virginia	1.600	1.000	Mar 2010	1.137	Mar 2011	0.000		1.137	Continuing	Continuing	Continuing
e. Manufacturing Process Support Costs	C/CPFF	Atlantic Diving Supply Virginia Beach, VA	0.000	0.129	Mar 2010	0.133	Mar 2011	0.000		0.133	Continuing	Continuing	Continuing
		Subtotal	11.600	3.946		4.220		0.000		4.220			

Remarks

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Defense Logistics Agency			DATE: February 2010
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 Reseach Network)*	

	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	11.600	3.946		4.220		0.000		4.220			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Defense Logistics Agency		DATE: February 2010
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 Reseach Network)*

	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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
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					■	■	■	■	■	■	■	■	■	■	■	■												
Transition to CDUM II Prototype Implementations													■	■	■	■	■	■	■	■	■	■	■	■				
CDUM II New Initiatives													■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Defense Logistics Agency		DATE: February 2010
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 Reseach Network)*

Schedule Details

	Start		End	
Event	**Quarter**	**Year**	**Quarter**	**Year**
Supply Chain Process Reengineering and AIT for Military Clothing	1	2009	4	2012
Shared Army and DSCP Asset Visibility and CIF Process Reengineering	1	2009	4	2012
Manufacturing Methods for Product Performance and Quality Improvement	1	2010	4	2012
Transition to CDUM II Prototype Implementations	1	2012	4	2014
CDUM II New Initiatives	1	2012	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
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)*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
3: *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*	2.546	2.453	2.607	0.000	2.607	2.626	2.644	2.690	2.736	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 19% 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 Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Procurement Readiness Optimization-Advanced Casting Technology Accomplishments/Plans	2.546	2.453	2.607	0.000	2.607
FY 2009 Accomplishments: There are 20,000 tools in the Defense Tooling Database, a 25% increase over last year. Pushing $1.5 million in solicitations per month (275 total solicitations in the last year) to foundries with existing casting tooling. Out of the 275 solicitations, the companies confirmed that they received an award on 141 of the 275. Furthermore, the awardees were not the previous supplier in 81 of those awards. In terms of cost savings – comparing the dollar value at the award price against the dollar value at the previous price, the program achieved a cost savings on this sample of 141 orders of $786K. Completed digital radiography standard for aluminum castings.					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
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)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: Develop technology to predict service life performance of steel castings. Develop statistical properties for E357 sand cast aluminum for aerospace castings. *FY 2011 Base Plans:* Completed digital radiography standard for investment steel castings. Develop high strength cast steels that can substituted for titanium casting with no weight penalty with substantial cost savings.					
Accomplishments/Planned Programs Subtotals	2.546	2.453	2.607	0.000	2.607

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Competitive Broad Agency Announcement (BAA) evaluations completed and this contract awarded competitively. The current contract reaches its funding ceiling October 2010. A similar acquisition strategy is planned the follow-on work in the out years.

E. Performance Metrics

This program has a business case that justifies the investment in terms of economic and readiness benefits.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Defense Logistics Agency			DATE: February 2010
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)*	

Support ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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 Institute North Charleston, South Carolina	5.660	2.453	Jan 2010	2.607	Mar 2011	0.000		2.607	Continuing	Continuing	Continuing
		Subtotal	5.660	2.453		2.607		0.000		2.607			

Remarks

	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	5.660	2.453		2.607		0.000		2.607			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Defense Logistics Agency			DATE: February 2010
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)*	

	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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
DoD Procurement Tools and technical Support	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Metal Matrix Composites									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Rapid Tooling									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Yield Improvement									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
A201 Statistical Properties									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Rapid Tooling for Short Run Metal Mold Applications	■	■	■	■	■	■	■	■																				
High Performance Casting Alloys	■	■	■	■	■	■	■	■																				
Self-Propagating High Temp Synthesis (SHS) for Metal Matrix Composite Components	■	■	■	■	■	■	■	■																				
Casting Metal Mold Production Improvements	■	■	■	■	■	■	■	■																				
Short Run Insert Production and Improved Yield	■	■	■	■	■	■	■	■																				
E357 Statistical Properties	■	■	■	■	■	■	■	■																				
Optimizing Corrosion Performance on Stainless Steel Castings & Welds	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Solidification Under pressure and Digital Radiography Standard for Investment Steel Castings	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Cast Part Performance in the Presence of Discontinuities	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Casting Standards and Specifications	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Defense Logistics Agency		DATE: February 2010
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)*

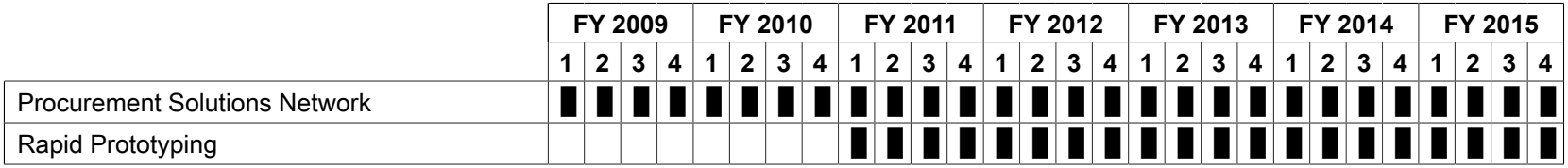

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0708011S: *Industrial Preparedness Manufacturing Technology (IP ManTech)*	**PROJECT** 3: *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*

Schedule Details

	Start		End	
Event	**Quarter**	**Year**	**Quarter**	**Year**
DoD Procurement Tools and technical Support	1	2009	4	2015
Metal Matrix Composites	1	2011	4	2015
Rapid Tooling	1	2011	4	2015
Yield Improvement	1	2011	4	2015
A201 Statistical Properties	1	2011	4	2015
Rapid Tooling for Short Run Metal Mold Applications	1	2009	4	2010
High Performance Casting Alloys	1	2009	4	2010
Self-Propagating High Temp Synthesis (SHS) for Metal Matrix Composite Components	1	2009	4	2010
Casting Metal Mold Production Improvements	1	2009	4	2010
Short Run Insert Production and Improved Yield	1	2009	4	2010
E357 Statistical Properties	1	2009	4	2010
Optimizing Corrosion Performance on Stainless Steel Castings & Welds	1	2009	4	2015
Solidification Under pressure and Digital Radiography Standard for Investment Steel Castings	1	2009	4	2015
Cast Part Performance in the Presence of Discontinuities	1	2009	4	2015
Casting Standards and Specifications	1	2009	4	2015
Procurement Solutions Network	1	2009	4	2015
Rapid Prototyping	1	2011	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
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)*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
4: *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*	1.182	1.145	1.230	0.000	1.230	1.252	1.268	1.290	1.313	Continuing	Continuing
Quantity of RDT&E Articles											

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 unfilled orders. 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 ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Procurement Readiness Optimization-Forging Advanced System Technology Accomplishments/Plans	1.182	1.145	1.230	0.000	1.230
FY 2009 Accomplishments: There are 60,000 tools in the National Forging Tooling Database Completed lean manufacturing demonstration projects at one small forge. Developed plan for dynamic partnering (sourcing tool) for forgings; lean six sigma process improvements at forges; develop multi-material, multi-method evaluation tool.					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
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)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: Investigation, development, and deployment of new and innovative tools, technologies and techniques to address forging design and acquisition for weapon systems. Projects include forming simulation; system performance prediction, new forging materials, and rapid tooling. Investigate best practices and models for Multi-Material, Multi-Method Evaluations; develop an affordable, easy-to-use, and effective model; demonstrate the model; and transition the model. *FY 2011 Base Plans:* Develop and deploy a web based tool that links forging customers to forging suppliers; 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. Exploit the strength and toughness of “the Atlas of Metal Products” in old and new weapon systems.					
Accomplishments/Planned Programs Subtotals	1.182	1.145	1.230	0.000	1.230

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

A Broad Agency Announcement (BAA) evaluations complete.

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 2011 Defense Logistics Agency		DATE: February 2010
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)*

Support ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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 Institute North Charleston, South Carolina	3.354	1.145	Jan 2010	1.230	Jan 2011	0.000		1.230	Continuing	Continuing	Continuing
		Subtotal	3.354	1.145		1.230		0.000		1.230			

Remarks

	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.354	1.145		1.230		0.000		1.230			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Defense Logistics Agency		DATE: February 2010
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)*

	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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
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)	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮												
Laser Deposition of Tooling	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮												
Dynamic Partnering (DP)	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮												
SmartChart™ Intelligent Process Tools for Forges	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Defense Logistics Agency		DATE: February 2010
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)*

Schedule Details

	Start		End	
Event	**Quarter**	**Year**	**Quarter**	**Year**
DoD Procurement Tools and Technical Support	1	2009	4	2015
Simulation of Heat Treat Distortion	1	2013	4	2015
Simulation and Workforce Development	1	2009	4	2012
Rapid Low Cost Data Generation for Simulation	1	2013	4	2015
Next Generation Low Cost Aluminum Alloys	1	2013	4	2015
National Forging Tooling Database (NFTD)	1	2009	4	2015
Metal and Process Optimization (MPO)	1	2009	4	2012
Laser Deposition of Tooling	1	2009	4	2012
Dynamic Partnering (DP)	1	2009	4	2012
SmartChart™ Intelligent Process Tools for Forges	1	2009	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
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)*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
5: *Material Acquisition Electronics (MAE)*	10.372	10.065	10.839	0.000	10.839	11.030	11.172	11.364	11.560	Continuing	Continuing
Quantity of RDT&E Articles											

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 $2.9 billion is spent every five years redesigning circuit card assemblies. Many of these circuit card redesigns are performed to mitigate IC obsolescence. Commercial ICs have short Product Life Cycles (often only 18 months). IC Manufacturers subsequently move on to later generations of ICs, leaving little to no sources for their previous IC products. DoD maintains weapons systems much longer than IC lifecycles, resulting in an obsolescence problem. In order to avoid costs and potential readiness issues associated with buying/carrying excess inventories acquired before commercial availability ceases, or redesigning the next higher assembly to mitigate the obsolete IC, DLA (as the manager of 88% of the IC Federal Stock Class) must have the capability to manufacture needed IC devices.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Material Acquisition Electronics Accomplishments/Plans	10.372	10.065	10.839	0.000	10.839
FY 2009 Accomplishments: MAE has produced new IC types including: Modular Pack Mine System, F/A-18, Milstar, AV-8B, F-15, and B-1. MAE has extended its capability to produce high operational speed, more complex function ICs, while simultaneously increasing yield.					
FY 2010 Plans: MAE will continue to advance our 0.5 micron design, test, and fabrication technologies, expanding our capabilities for high circuit density and radiation hardened ICs. The IC characterization tool will continue development to accommodate more complex DoD IC requirements, providing critical missing design specifications. MAE will continue an IC requirements assessment and evaluate the feasibility					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
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)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
of an analog Emulation capability. These efforts will include progressively more complex Application Specific Integrated Circuits (ASICs). *FY 2011 Base Plans:* 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.					
Accomplishments/Planned Programs Subtotals	10.372	10.065	10.839	0.000	10.839

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 2011 Defense Logistics Agency			DATE: February 2010
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)*	

Support ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	Sarnoff Corporation Princeton, New Jersey	29.462	10.065	Oct 2009	10.839	Oct 2011	0.000		10.839	Continuing	Continuing	Continuing
		Subtotal	29.462	10.065		10.839		0.000		10.839			

Remarks

	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	29.462	10.065		10.839		0.000		10.839			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Defense Logistics Agency			DATE: February 2010
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)*	

	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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)																												
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 2011 Defense Logistics Agency		DATE: February 2010
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)*

Schedule Details

	Start		End	
Event	**Quarter**	**Year**	**Quarter**	**Year**
Perform Gap Analysis (GA)	1	2009	4	2015
Implement Process Improvements	1	2009	4	2015
Plan required Process Improvements	1	2009	4	2015
Perform Process Review	1	2009	4	2015
Transition New Microcircuit Designs to LRIP	1	2009	4	2015
Develop Low Rate Initial Production (LRIP) Capability	1	2009	4	2015
Develop Prototypes for Test and Insertion	1	2009	4	2015
Update Design Library	1	2009	4	2015
Perform Base Array Designs Required to Fill GA	1	2009	4	2015
Monitor and Adjust Process Improvements	1	2009	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
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)*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
6: *Battery Network (BATTNET)*	0.000	0.981	0.978	0.000	0.978	0.976	0.973	0.970	0.967	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

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. BATTNET is a community of practice of battery supply chain members, including materials and components suppliers, assemblers, engineering support activities, battery maintenance activities, researchers, and users.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
BATTNET Accomplishments/Plans	0.000	0.981	0.978	0.000	0.978
FY 2009 Accomplishments: DLA awarded nine industry contracts as a result of a BAA developed with the Military Services. DLA formally established Program Management and continued collaborative process with the Joint Defense Manufacturing Technology Panel (JDMTP) Power Sources Committee and National Defence Industrial Association (NDIA) Power Forum.					
FY 2010 Plans: DLA conducted an initial BATTNET meeting in October 2009 to review and assess the project proposals originally submitted in the BAA. DLA plans on conducting a study of its battery supply chain and work with the BATTNET on new project proposals. BATTNET R&D will be done through awards of Short Term Projects (STP) implemented within the DLA battery supply chain to assure the prompt and sustained availability, quality, and affordability of batteries. STPs have 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 for success and a predicted return on investment (ROI).					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
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)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: Initial focus will be on processes used to qualify new producers, so that surge requirements can be more easily met.					
Accomplishments/Planned Programs Subtotals	0.000	0.981	0.978	0.000	0.978

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

A competitive Broad Area Announcement (BAA) will allow for maximum competition. To continue the competition throughout the life of the program, up to 10 contracts will be awarded to research partners. These research partners will continue to compete among themselves for particular research tasks. Additional partners will be sought as the need arises.

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-4, RDT&E Schedule Profile: PB 2011 Defense Logistics Agency			DATE: February 2010
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)*	

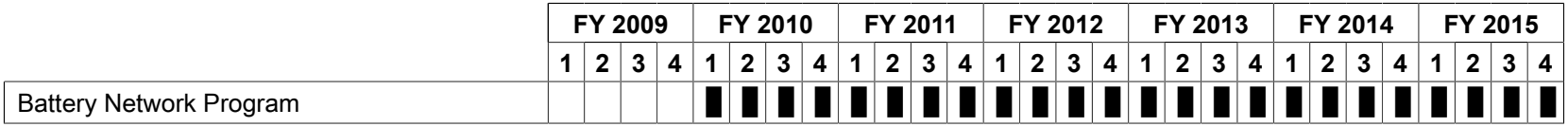

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0708011S: *Industrial Preparedness Manufacturing Technology (IP ManTech)*	**PROJECT** 6: *Battery Network (BATTNET)*

Schedule Details

	Start		End	
Event	**Quarter**	**Year**	**Quarter**	**Year**
Battery Network Program	1	2010	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
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 7: *Other Congressional Adds (OCAs)*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
7: *Other Congressional Adds (OCAs)*	33.358	25.864	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

DLA oversees the management of Congressional Add programs assigned to program element 0708011S, Industrial Preparedness.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
Congressional Add: Cellulosic Derived Biofuels Research Project *FY 2009 Accomplishments:* The objective of this program is to demonstrate that cellulosic-derived biodiesel and JP-8 are viable for large scale production in a process that utilizes algae to convert biomass into bio-oils. The research approach includes first conducting biomass surveys to identify suitable crops and available croplands in Kentucky to ensure there is enough biomass feedstock available for a commercial scale biofuel facility. Then, an optimal 'recipe' of cellulosic material will be determined for the production of biodiesel and (ultimately) bio jet fuel using non-food cellulosic materials.	3.988	0.000
Congressional Add: Cooper Based Casting Technology Applications (CBCT) *FY 2009 Accomplishments:* The objectives of this program are to leverage the successes of the DLA-led CBCT program into deployable applications and to develop lighter/smaller pump/motor applications that are more efficient, run cooler, & last longer.	2.792	1.592

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
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 7: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
FY 2010 Plans: To be determined.		
Congressional Add: Improved Collapsible Urethane Fuel Storage (ICU-FST) *FY 2009 Accomplishments:* Collapsible Fuel Storage Tanks have provided tactical bulk petroleum storage to the U.S. Military for decades. Initially developed to supplement bolted steel tanks, bladders have now become the primary method used by the Department of Defense (DoD) for storing tactical fuel on the battlefield. Current bladders being used have been unreliable, inefficient and unsafe with a history of failures that have caused the end users to lose faith in this equipment. As there are no commercial applications for bags in Contingent United States (CONUS), this effort will focus exclusively on DoD use. Accomplishments to date include: High Temperature Dead Load in Fuel Apparatus prototype cylinder design work completed and finalized DOE (design of experiment) with ILC Dover on design of manufacturing and process control experiment including equipment that will be used. Improve tank fabrication techniques and quality control procedures in design and manufacture of tank seams. Incorporate fabrication and quality control improvements into Joint Military Performance Specification. Share findings with Government and industry.	1.596	0.000
Congressional Add: Industrial Base Innovation Fund *FY 2009 Accomplishments:* The Defense Logistics Agency (DLA) received the tasking in January 2008 to execute the program on behalf of the Department of Defense. DLA has been instructed to execute the fund in coordination with the Joint Defense Manufacturing Technology Panel (JDMTP) and with the Office of the Deputy Under Secretary of Defense for Industrial Policy (ODUSD(IP)). The objective of the program is to	19.148	19.895

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
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 7: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
ensure that investments are made to address shortfalls in manufacturing processes and technologies in support of the Department's long-term and short-term needs. *FY 2010 Plans:* To be determined.		
Congressional Add: Northwest Defense Manufacturing Initiative *FY 2009 Accomplishments:* Northwest Manufacturing Initiative has several thrusts. Half the funding goes toward training activities for subject matter experts (SMEs) that include lean, outreach, workforce development and capability mapping. The other half of the funding goes to Portland State University to develop and complete technology transfer in advanced welding technologies. *FY 2010 Plans:* To be determined.	1.596	1.989
Congressional Add: Ultra-high Strength Steele for Landing Geer *FY 2009 Accomplishments:* The objective of this program is to develop and deploy a corrosion resistant ultrahigh strength steel equal to or better than 300M and 4340 for the Department of Defense weapon system components that will reduce development time and weapon system life-cycle maintenance costs. FY 2009 Accomplishments: AMS 5922 (Aerospace Material Specification for Corrosion-Resistant Steel Bars) and MMPDS-05 (Metallic Materials Properties Development and Standardization) standards approval, completion of full scale 3-axis fatigue testing on A-10 main landing gear (MLG) piston, and completion of pressure testing on A-10 strut brace.	1.995	1.592

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
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** 7: *Other Congressional Adds (OCAs)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
FY 2009 Plan: Complete full rig 3-axis testing on T38 piston, produce C-5 roll pin forgings, and produce F-16 lightweight nose landing gear (NLG) axel components. *FY 2010 Plans:* To be determined.		
Congressional Add: Vet-Biz Initiative for National Sustainment (VINS) *FY 2009 Accomplishments:* The objective of this program it to provide strategic consulting and hands on training to help Service Disabled Veteran Owned Business (SDVOSB). *FY 2010 Plans:* To be determined.	1.995	0.796
Congressional Add: Wiring Integrity Technology *FY 2009 Accomplishments:* The objective of this project was to improve the inspection capability of multi-strand aviation power and communication wires.	0.248	0.000
Congressional Adds Subtotals	33.358	25.864

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
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 7: *Other Congressional Adds (OCAs)*

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency	DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0708012S: *Logistics Support Activities (LSA)*

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	2.683	2.783	2.813	0.000	2.813	2.857	2.899	2.946	2.995	Continuing	Continuing
1: *Logistics Support Activities (LSA)*	2.683	2.783	2.813	0.000	2.813	2.857	2.899	2.946	2.995	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program is reported in accordance with the Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

B. Program Change Summary ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	2.846	2.798	0.000	0.000	0.000
Current President's Budget	2.683	2.783	2.813	0.000	2.813
Total Adjustments	-0.163	-0.015	2.813	0.000	2.813
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	-0.155	0.000			
• SBIR/STTR Transfer	-0.008	0.000			
• FY 2011 Other Program Changes	0.000	0.000	2.813	0.000	2.813
• FY 2010 Economic Assumptions	0.000	-0.013	0.000	0.000	0.000
• FY 2010 Federally Funded Research and Development Center Reduction	0.000	-0.002	0.000	0.000	0.000

Change Summary Explanation

FY 2009 - 26 PA OMNIBUS Reprogramming Action: $.155M

FY 2010 Economic Assumption: $.013M

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency	DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0708012S: *Logistics Support Activities (LSA)*

FY 2010 Federally Funded Research and Development Center Reduction: $.002M

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0708012S: *Logistics Support Activities (LSA)*	PROJECT 1: *Logistics Support Activities (LSA)*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
1: *Logistics Support Activities (LSA)*	2.683	2.783	2.813	0.000	2.813	2.857	2.899	2.946	2.995	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This program is reported in accordance with the Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Logistics Support Activities	2.683	2.783	2.813	0.000	2.813
This is a classified program. *FY 2009 Accomplishments:* This is a classified program. *FY 2010 Plans:* This is a classified program. *FY 2011 Base Plans:* This is a classified program.					
Accomplishments/Planned Programs Subtotals	2.683	2.783	2.813	0.000	2.813

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0708012S: *Logistics Support Activities (LSA)*	**PROJECT** 1: *Logistics Support Activities (LSA)*

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Perform classified logistics in accordance with direction provided by the Office of the Secretary of Defense (OSD) Special Access Programs Coordination Office (SAPCO). Program oversight provided by OSD SAPCO.