Exhibit R-2, RDT&E Budget Item Justification							Date: February 2003	
Appropriation/Budget Activity RDT&E, Defense-wide BA 3				R-1 Item Nomenclature: Logistics R&D Technology Demonstration 0603712S				
Cost ($ in millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Total PE Cost	88.803	129.291	22.359	23.542	24.905	26.565	27.022	27.488
Project 1: Material Acquisition: Electronics	9.232	16.537	9.673	10.160	10.267	10.326	10.494	10.678
Project 2: Computer to Computer Negotiations	2.965	3.562	-----	-----	-----	-----	-----	-----
Project 3: Pay per Use Logistics System	2.372	1.747	-----	-----	-----	-----	-----	-----
Project 4: Aging Aircraft Sustainment Technology (AAST)	4.816	5.349	5.087	5.293	5.388	5.469	5.557	5.652
Project 5: Virtual Reality Medical Assembly	1.231	0. 594	1.923	2.946	2.947	1.935	1.968	2.002
Project 6: Diminishing Manufacturing Source Data (DMS)	1.000	0.974	-----	-----	-----	-----	-----	-----
Project 7: Computer Assisted Technology Transfer (CATT)	2.800	2.723	-----	-----	-----	-----	-----	-----
Project 8: Competitive Sustainment (CS)	-----	0.965	0.986	1.196	2.356	4.893	5.546	5.402
Project 9: Supply Chain Management	1.987	15.564	3.411	3.457	3.457	3.453	-----	-----
Project 10: Agent Based Logistics Processes	-----	-----	-----	-----	-----	-----	2.969	3.267
Project 11: eMASS (Completion Project)	-----	-----	1.279	0.490	0.490	0.489	0.488	0.487
Project 12: Defense Microelectronics Activity (DMEA)	62.400	58.321	-----	-----	-----	-----	-----	-----
Project 13: Other Congressionally Added Programs (OCAs)	-----	22.955	-----	-----	-----	-----	-----	-----

A. Mission Description and Budget Item Justification:
The DoD logistics vision calls for providing flexible, cost effective and prompt materiel support, logistics information and services, achieving the leanest possible infrastructure and the employment of the best commercial and government sources and practices. The DLA Logistics R&D

Exhibit R-2, RDT&E Budget Item Justification	Date: February 2003
Appropriation/Budget Activity RDT&E, Defense-wide BA 3	R-1 Item Nomenclature: Logistics R&D Technology Demonstration 0603712S

program will develop and demonstrate high risk, high payoff technology that will provide a significantly higher level of support at lower costs, than would be otherwise attainable. This DLA program is a key part of the DARPA/DLA Advanced Logistics Program. Focused Logistics is one of the five basic tenants of Joint Vision 2020. The DLA Logistics R&D program contributes directly to achieving JV 2020's vision of logistics "support in hours or days versus weeks." The objective of the Advanced Logistics Program is a collaborative environment that will allow the Operations community (J3) and Logistics planning community (J4), TRANSCOM, and DLA to seamlessly interact on operations planning and execution of wartime operations. In addition, DLA will use the same system in peacetime to significantly reduce Logistics Response Time and reduce the cost of DLA operations while maintaining readiness. The following synopses cover the programs under the DLA Log R&D PE:

B. Program Change Summary: (Show total funding, schedule, and technical changes for the program element that have occurred since the previous President's Budget Submission)

	FY 02	FY 03	FY 04	FY 05
Previous President's Budget	84.043	25.451	27.735	28.689
Current President's Budget	88.803	129.291	22.359	23.542
Total Adjustments	+4.760	+103.840	-5.376	-5.147
Congressional increases		+107.450		
Revised inflation rate	-0.228	-1.092	-0.382	-0.552
Congressional program reductions/ rescissions		-2.518		
Reprogrammings/transfers	+5.000			
Program adjustments	-0.012		-4.994	-4.595

Change Summary Explanation: FY 2002 reflects a reduction due to revised inflation rates (-$0.228 million), the Log R&D PE's pro-rata share of a DoD Intra-Agency Council bill (-$0.012 million), and a reprogramming of +$5.000 million for the Miniaturized Wireless System (DMEA) program. FY 2003 reflects (+$107.450 million) congressionally added dollars for several electronic/related DMEA projects (+$59.950 million); Diminishing Manufacturing Warehouse Solution (+$1.0 million); Microelectronics Testing Technology/Obsolescence Program (+$7.1 million); Milstar Painting and Coating Pollution Prevention (+$1.0 million); CATT (+$2.8 million); several OCAs for Homeland Defense Technology Collaboration Center (+$1.8 million); Vehicle Fuel Cell Program (+$7.0 million); Fuel Cell Locomotive (+$1.0 million); Agile Port Demonstration (+$4.3 million); New England Manufacturing Supply Chain (+$6.0 million); and Maintainers Remote Logistics Network (+$3.5 million). FY 2003 also reflects congressional adjustments per Section 8029 Federally Funded Research and Development Centers (FFRDCs) (-$0.219 million), Section 8100 Business Process Reform (-$1.216 million), Section 8109 Reducing Cost Growth in IT development (-$0.289); Section 8135 Rescission (-$0.794); and an FY 2003 inflation adjustment (-$1.092 million). FYs 2004 and 2005 TOA net adjustments (-$4.994 million in FY 2004, and -$4.595 million in FY 2005 reflect completion of funding for the Computer to Computer Negotiations (-$3.809 million in FY 2004 and -$3.025 million in FY 2005); Pay per Use Logistics Systems (-$2.485 million in FY 2004 and -$2.070 million in FY 2005); R&D funding for completion of the IT eMASS system (+$1.300 million in FY 2004 and +$0.500 million in FY 2005; and inflation adjustments (-$0.382 million in FY 2004 and -$0.552 million in FY 2005).

C. Other Program Funding Summary: N/A

Exhibit R-2a, RDT&E Project Justification							Date: February 2003
Appropriation/Budget Activity RDT&E, Defense-wide BA 3			Project Name and Number Material Acquisition: Electronics (MAE), Project 1				
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 1: MAE	9.232	16.537	9.673	10.160	10.267	10.326	10.494	10.678
RDT&E Articles Quantity - N/A								

A. Mission Description and Budget Item Justification: Develop a capability to emulate most obsolete digital integrated circuits (ICs) in the federal catalog using a single, flexible manufacturing line. DoD has estimated that $2.9B is spent every five years in redesigning circuit card assemblies. Much of these redesigns are driven by IC obsolescence. The commercial suppliers of ICs typically terminate production lines every 18 months, moving on to the next generation of ICs. Because DoD maintains weapons systems much longer than 3 years, this creates an obsolescence problem that can only be overcome through buying excessive inventories of parts before the production lines close or redesigning the next higher assembly to eliminate the obsolete part. DLA, as the manager of 88% of the IC supply class, must have a capability to manufacture these devices. This project develops this capability and will expand it to succeeding generations of obsolete ICs through the Advanced Microcircuit Emulation program.

B. Accomplishments/Planned Program:

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	9.232	9.629	9.673	10.160
RDT&E Articles Quantity – N/A				

The MAE project covers development of IC fabrication technology to continue to expand the capability to emulate succeeding generations of discontinued technology. This will include Low Rate Initial Production of earlier development efforts (e.g., 200K emulation Array) and integration of Advanced Tooling and development of future capabilities (e.g., High Speed/ High Density Emulation Arrays). Technology development will continue to deeper sub-micron (<1.0 um) feature sizes and faster operating speeds. Development of IC design capability and design model library to realize emulation performance and functional requirements outcomes using developed IC fabrication technology. This design capability will address both standard catalog ICs and Application Specific Integrated Circuits (ASICs) and will accommodate both in-house and third-party (principally OEM) design requirements.

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	-----	6.908	-----	-----
RDT&E Articles Quantity – N/A				

The congressionally added Microelectronics Testing Technology/Obsolescence Program will test, evaluate, and assess wide range microelectronics components that comprise so many of today's sophisticated military, and commercial systems.

C. Other Program Funding Summary: N/A

Exhibit R-2a, RDT&E Project Justification							Date: February 2003	
Appropriation/Budget Activity RDT&E, Defense-wide BA 3				Project Name and Number Computer to Computer Negotiations, Project 2				
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 2: Computer to Computer Negotiations	2.965	3.562	-----	-----	-----	-----	-----	-----
RDT&E Articles Quantity - N/A								

A. Mission Description and Budget Item Justification: Current DLA/Service systems are unable to allow accurate visibilities to respond to the rapidly changing requirements. Cross-organizational system interfaces are needed for the supply chain decision-making process. The re-engineering effort under BSM does provide for eventual solution, however there are immediate needs to identify areas of gaps and develop interfaces, such as the integration of Service ERP system to the DLA Depot inventory system (DSS). Approach: The purpose of this activity is to capture supply-chain-wide visibilities and to use knowledge based intelligent workflow technologies to develop system interfaces that support the establishment of automated business processes and transactions between the Services and DLA.

B. Accomplishments/Planned Program:

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	2.965	3.562	-----	-----
RDT&E Articles Quantity – N/A				

Initiated the R&D development towards the expansion of computer software agent to agent negotiation techniques utilizing the ALP architecture in support of DLA application in classes I(Subsistence) and VIII(Medical) supply support plans. US Army Medical Materiel Agency (USAMMA) and Defense Supply Center Philadelphia, Medical (DSCP-M) need to develop a shared systems interface for demand forecasting and achievement of medical set assembly goals in FY02. A prototype will be developed to mitigate the long lead-times and static nature in medical assembly processes and address gaps in the current legacy ERP systems at DLA and USAMMA.

C. Other Program Funding Summary: N/A

Exhibit R-2a, RDT&E Project Justification							Date: February 2003	
Appropriation/Budget Activity RDT&E, Defense-wide BA 3				Project Name and Number Pay per Use Logistics, Project 3				
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 3: Pay Per Use Logistics System	2.372	1.747	-----	-----	-----	-----	-----	-----
RDT&E Articles Quantity - N/A								

A. Mission Description and Budget Item Justification: The emergence of complex networked computer systems promises to enhance DoD Logistics functions with new sources of information and services. Our vendor communities are developing rich sources of commodity information and information services. Functions that are currently done by government personnel and contractors might be better done on a "pay-per-use" basis by these new sources. For example, in times of conflict, the number of transactions processed by DLA systems do not increase greatly, but the number of items purchased does. The job of finding adequate sources and product equivalents is still labor intensive. Access to web-based information sources would improve procurement efficiency and the readiness of our customers. There are two basic issues that must be solved if we are to make use of these new capabilities. First, there must be a level of trust and assurance established with our commercial partners. This program will develop ways of automating information assurance relationships, especially in an environment that might be under attack. Second, the richness of information that is exchange must be increased. Use of human cognitive engineering will be used to support the functions of our knowledge workers to increase their efficiency while improving the quality of the services provided.

B. Accomplishments/Planned Program:

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	2.372	1.747	-----	-----
RDT&E Articles Quantity – N/A				

- Initial awards for concept studies.
- The concepts were evaluated and prototypes will begin to be developed.
- Explore using the Advanced Logistics Program (ALP) technology to allow for interoperability between existing DLA applications.

C. Other Program Funding Summary: N/A

Exhibit R-2a, RDT&E Project Justification								Date: February 2003
Appropriation/Budget Activity RDT&E, Defense-wide BA 3				Project Name and Number - Aging Aircraft Sustainment Technology (AAST), Project 4				
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 4: AAST	4.816	5.349	5.087	5.293	5.388	5.469	5.557	5.652
RDT&E Articles Quantity - N/A								

A. Mission Description and Budget Item Justification: The primary mission is to improve DLA support to our customers who are operating aging aircraft systems. Focus is on improving visibility of demand generation and DLA's ability to respond once demands are received.

Part of the Aging Aircraft Sustainment Program is the Corrosion Prevention feature. The Virtual Corrosion Control Consortium (V-3C) is a web based information aggregation and collaboration capability designed to improve the productivity of both the public and private sectors of the corrosion community without altering the individual stakeholders' goals, objectives and functional processes. It provides a forum for communication and technical information exchange among all parties interested in corrosion prevention and treatment from basic research through application. An incremental development approach provides the ability to tailor capabilities based on "lessons learned" and evolving community needs. This task is the ongoing support of the Assistant Deputy Under Secretary of Defense, Maintenance Policy, Programs, and Resources (ADUSD/MPPR). Their mission is to provide responsible and cost-effective support to ensure readiness and sustainability for the total force. The vision of the ADUSD/MPPR is by FY2006, the joint logistics process will be a highly efficient, integrated system that ensures required support to the war-fighter. The Virtual Corrosion Control Consortium (V-3C) project provides a corrosion prevention and control information management and distribution center that will be life-cycle oriented and will serve as a leader in corrosion research, industry coordination, and information dissemination to all authorized agencies and components. In FY 2002 the Corrosion Prevention Info Distribution Center (CPIDC) a congressional add was funded under AAST ($1.0 million). In FY 2003, Milstar Painting and Coating Pollution Prevention, a congressionally added program that will train in sound ways to coat aircraft, ships and vehicles; establish training sites at military bases, and create a MilStar internet database network, is funded under AAST ($0.973 million).

B. Accomplishments/Planned Program:

	FY 02	FY 03	FY 04	FY 05
AAST	4.816	4.376	5.087	5.293
RDT&E Articles Quantity - N/A				

Investigate and develop methods and tools for improved parts situation awareness in order to employ a more proactive approach to aircraft parts availability and supply. This thrust improves DLA's ability to predict DoD customer needs for increasing fleet maintenance requirements on aging aircraft. It includes efforts such as the development of various data extraction tools and techniques to access a wide variety of customer and supplier data bases, systems, or networks, extract relevant information, and present that information in a tailored fashion for use by program managers, maintainers, item managers, and buyers. Characterization of items of supply unique to the problems associated with the maintenance requirements for aging aircraft and their impact on DoD customer metrics such as fleet readiness levels, depot repair cycle time, cost etc.

Exhibit R-2a, RDT&E Project Justification							Date: February 2003
Appropriation/Budget Activity RDT&E, Defense-wide BA 3			Project Name and Number - Aging Aircraft Sustainment Technology (AAST), Project 4				
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 4: AAST	4.816	5.349	5.087	5.293	5.388	5.469	5.557	5.652
RDT&E Articles Quantity - N/A								

	FY 02	FY 03	FY 04	FY 05
Milstar Painting and Coating	-----	0.973	-----	-----
RDT&E Articles Quantity - N/A				

Identify key functions for utilization of information in decision making relative to aircraft maintenance, parts supply, or sustaining engineering needs. Develop the concept of proactive sharing of information between various field activities, DLA ICP's, and weapons system Program Managers for utilization in planning or decision-making. Characterization of items of supply unique to the problems associated with the maintenance requirements for aging aircraft and their impact on DoD customer metrics such as fleet readiness levels, depot repair cycle time, cost etc.

C. Other Program Funding Summary: N/A

Exhibit R-2a, RDT&E Project Justification							Date: February 2003	
Appropriation/Budget Activity RDT&E, Defense-wide BA 3				Project Name and Number – Virtual Reality Medical Assembly (VRMA), Project 5				
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 5: VRMA	1.231	0. 594	1.923	2.946	2.947	1.935	1.968	2.002
RDT&E Articles Quantity - N/A								

A. Mission Description and Budget Item Justification: Defense Logistics Agency (DLA) has the responsibility to procure Medical Assemblies for the Services. These Medical Assemblies are complex in nature and change frequently to accommodate new types of form, fit, function, and utility. This program will attempt to utilize technology to reduce lead times, to reduce the logistics footprint, and to reduce overall assembly life-cycle costs.

B. Accomplishments/Planned Program:

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	1.231	0. 594	1.923	2.946
RDT&E Articles Quantity – N/A				

This effort began in FY 2001 with Joint Application Development (JAD) sessions to formalize requirements. Market analysis will be performed to identify the most appropriate virtual reality technology to employ, and detailed system specifications will be created. In FY 2002, a prototype of first-aid kits will be developed. In addition, formal requirements will be developed for a more complex medical assembly. In FY 2003, the first-aid kit assembly will be made ready for a production environment, the more complex medical assembly will be prototyped, and commercial data interfaces will be established. In FY 2004, DLA will prototype an entire field hospital assembly and will look to apply the technology to other processes within DLA. In FY 2005, DLA plans for full-scale production and demonstrations.

C. Other Program Funding Summary: N/A

Exhibit R-2a, RDT&E Project Justification								Date: February 2003
Appropriation/Budget Activity RDT&E, Defense-wide BA 3				Project Name and Number – Diminishing Manufacturing Source Data (DMS), Project 6				
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 6: DMS	1.000	0.974	-----	-----	-----	-----	-----	-----
RDT&E Articles Quantity - N/A								

A. Mission Description and Budget Item Justification: As aircraft, ships, and other vehicles are being expected to operate much longer than originally designed, the supply of parts for these systems has become a significant problem. When systems and components can no longer be obtained they are called diminishing manufacturing source (DMS) problems. Throughout the military, there are literally hundreds of independent operations attempting to solve steadily worsening DMS problems. Because these operations are very "stove-piped" in their existence, they do not share information across weapon systems, even though many of the parts are common. The only method to decrease this ever expanding cost to solve DMS problems would be to have a central repository of part solutions, shared across all weapon systems and all services. In order to create a central repository of military parts, a very large data warehouse will need to be created and populated with solutions to these DMS part problems.

B. Accomplishments/Planned Program:

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	1.000	0.974	-----	-----
RDT&E Articles Quantity – N/A				

Develop a central repository of part solutions, shared across all weapon systems and all services. In order to create a central repository of military parts, a very large data warehouse will need to be created and populated with solutions to these DMS part problems.

C. Other Program Funding Summary: N/A

Exhibit R-2a, RDT&E Project Justification								Date: February 2003
Appropriation/Budget Activity RDT&E, Defense-wide BA 3				Project Name and Number –Computer Assisted Technology Transfer (CATT), Project 7				
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 7: CATT	2.800	2.723	-----	-----	-----	-----	-----	-----
RDT&E Articles Quantity - N/A								

A. Mission Description and Budget Item Justification: This initiative is necessary to identify and establish commercial manufacturing capabilities so that DLA Centers can acquire parts as they are needed (on demand) rather than investing in excessive stock, or risking non-availability of essential parts when needed. Contracting relationships will be established to obtain small quantities of military unique items of low demand, with significantly lower costs and greatly improved response time. This is an effort to use private sector manufacturers, in addition to all other measures to obtain parts quickly. CATT establishes a network of companies to produce parts in a very short production lead-time with minimum administration. This is a congressionally added program.

B. Accomplishments/Planned Program:

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	2.800	2.723	-----	-----
RDT&E Articles Quantity – N/A				

Develop forecasting tools for low demand items. Develop corrosion protective compounds to replace paint primer systems. Provide support for Warner Robins ALC maintained aircraft spare parts.

C. Other Program Funding Summary: N/A

Exhibit R-2a, RDT&E Project Justification							Date: February 2003	
Appropriation/Budget Activity RDT&E, Defense-wide BA 3				Project Name and Number – Competitive Sustainment (CS), Project 8				
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 8: CS	-----	0.965	0.986	1.196	2.356	4.893	5.546	5.402
RDT&E Articles Quantity - N/A								

A. Mission Description and Budget Item Justification: Competitive Sustainment (CS) was added by Congress in FY 2000 in recognition of the need to make a substantial reduction to the cost of support for aging weapon systems.

B. Accomplishments/Planned Program:

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	-----	0.965	0.986	1.196
RDT&E Articles Quantity – N/A				

A competitive source selection process was conducted for a manager of an industry coalition to conduct the work. The project conducts industry/Government pilots in the following five areas: 1) effective supply partnerships; 2) significant improvement in quality and access to technical data; 3) a streamlined maintenance process; 4) upgrade strategies for increased reliability and 5) innovative training. The goals are to reduce total costs of spares/replacements, cut the time from requirement to delivery for supplies and cut repair cycle.

C. Other Program Funding Summary: N/A

Exhibit R-2a, RDT&E Project Justification								Date: February 2003
Appropriation/Budget Activity RDT&E, Defense-wide BA 3				Project Name and Number - Supply Chain Management (SCM) Project 9				
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 9: SCM	1.987	15.564	3.411	3.457	3.457	3.453	-----	-----
RDT&E Articles Quantity - N/A								

A. Mission Description and Budget Item Justification: The DLA mission is to get the right item, at the right time, to the right place, at the right price, every time, in support of America's warfighter. To accomplish its mission DLA must use an integrated combat logistics solution that is coordinated among the services and across DoD to meet all combat support requirements in peace and war. 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 assembling supply chains to shorten lead times and reduce costs. The Agency must ensure that outsourcing strategies are coordinated; performance measures are in place to measure effectiveness, that the organizational structure promotes successful supply chain management and to incorporate the latest electronic commerce initiatives into its supply chain. The congressionally added Defense Supply Chain Technology Program (DSCT) program is funded here in FY 2003 ($11.791 million).

B. Accomplishments/Planned Program:

	FY 02	FY 03	FY 04	FY 05
SCM/DSCT	1.987	15.564	3.411	3.457
RDT&E Articles Quantity - N/A				

We are managing both the baseline SCM (3.773M) and congressionally added DSCT (11.791) as a single program. Our program will initiate some 20 Supply Chain Management Projects for DLA and the Services, which are in the following areas as they emerge from our current transformation efforts: supplier facing, customer facing, DLA Direct, customer Direct, and process enhancement.

C. Other Program Funding Summary: N/A

Exhibit R-2a, RDT&E Project Justification							Date: February 2003	
Appropriation/Budget Activity RDT&E, Defense-wide BA 3				Project Name and Number-Agent Based Logistics Processes, Project 10				
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 10: Agent Based Logistics Processes	-----	-----	-----	-----	-----	-----	2.969	3.267
RDT&E Articles Quantity - N/A								

A. Mission Description and Budget Item Justification: Project will develop plans and tools for flexible responses to changing supplier and demand data. It will provide the ability to link into war planning systems to address the ability of the industrial base to meet National Emergency Requirements. Nothing funded until FY08.

B. Accomplishments/Planned Program: N/A

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	-----	-----	-----	-----
RDT&E Articles Quantity – N/A				

C. Other Program Funding Summary: N/A

Exhibit R-2a, RDT&E Project Justification								Date: February 2003
Appropriation/Budget Activity RDT&E, Defense-wide BA 3				Project Name and Number – eMASS, Project 11				
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 11: eMASS (Completion Project)	-----	-----	1.279	0.490	0.490	0.489	0.488	0.487
RDT&E Articles Quantity - N/A								

A. Mission Description and Budget Item Justification: Enterprise Mission Assurance Support System (eMASS) is a comprehensive, enterprise-wide capability that automates all major information assurance processes including certification and accreditation, vulnerability management, incident response, INFOCON level management and control, IA resource planning and management, circuit connection management, contingency planning, and IA command and control. It has OSD support since it will be used across DoD. eMASS will provide a single information assurance exchange standard across the DoD Global Information Grid (GIG) and will be an implementation of Security Assertion Markup Language (SAML), an XML based exchange standard. eMASS is being developed through a partnership with C3I, and will vet the policy requirements of an emerging family of information assurance policies called the 8500 series. eMass started within the PUL Log R&D. This R&D funding is needed for eMASS project completion.

B. Accomplishments/Planned Program:

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	-----	-----	1.279	0.490
RDT&E Articles Quantity – N/A				

Complete fully functional eMASS prototype in XML schema and XSLT style sheets. Complete SAML exchange standard for certification and accreditation security assertions. Fully integrate eMASS with the Open Vulnerability Assessment Language (OVAL) standard by developing an exchange standard with the Mitre Corporation Outpost automated toolset.

C. Other Program Funding Summary: N/A

Exhibit R-2a, RDT&E Project Justification								Date: February 2003
Appropriation/Budget Activity RDT&E, Defense-wide BA 3				Project Name and Number – Defense Microelectronics Activity (DMEA), Project 12				
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 12: DMEA	62.400	58.321	-----	-----	-----	-----	-----	-----
RDT&E Articles Quantity - N/A								

A. Mission Description and Budget Item Justification: The Defense Microelectronics Activity **(**DMEA) mission is to leverage advanced technologies to extend the life of weapon systems, to solve operational problems (e.g., reliability and maintainability) and to address diminishing manufacturing sources. The DMEA provides technical and application engineering support for the implementation of advanced microelectronics research technologies from design through assembly and installation. The DMEA manages an organic capability to support these strategically important technologies within the DoD. These advanced technologies are translated into solutions for military needs. DMEA's RDT&E program is comprised of a mix of studies, investigations, planning efforts, developments, fabrications, and the insertions of solutions. This effort applies to all DoD systems using electronics e.g., F-22, B-2, AWACS, F-16, F-15, F-14, GPS, USQ-113, JAST, EA-6B, M-65, AN/TSC-93B, and AN/GSC-49 (V). Funds are required for technical and analytical support, equipment, supplies, travel, and publications.

B. Accomplishments/Planned Program:

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	8.500	8.513	-----	-----
RDT&E Articles Quantity – N/A				

Center for Nanosciences Innovation efforts are to systematically clarify the feasibility of applying nanoscience and technology to defense requirements.

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	7.700	6.809	-----	-----
RDT&E Articles Quantity – N/A				

Advanced Spray Cooling Technology efforts are to develop standardized advanced spray cooling technology products, demonstrate them in cross-platform migrations, and develop an automated process for integration of spray cooling products into military systems.

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	5.000	6.225	-----	-----
RDT&E Articles Quantity – N/A				

Optimizing Electronics for Advanced Controlled Environment Systems (ACES) efforts are to resolve thermal issues regarding electronics densification & advanced electronics packaging in military applications by designing components, chip-scale packaging, stacked structures, and electronic environmental systems that can withstand the demanding military thermal environments.

Exhibit R-2a, RDT&E Project Justification								Date: February 2003
Appropriation/Budget Activity RDT&E, Defense-wide BA 3				Project Name and Number – Defense Microelectronics Activity (DMEA), Project 12				
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 12: DMEA	62.400	58.321	-----	-----	-----	-----	-----	-----
RDT&E Articles Quantity - N/A								

B. Accomplishments/Planned Program: (continued)

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	27.000	24.321	-----	-----
RDT&E Articles Quantity – N/A				

Ultra-low Power Battlefield Sensor Communication System (ULBPSCS) efforts are to develop a netted battlefield sensor system with a combination of ultra-sensitive receivers, ultra-low power miniature sensors, advanced manufacturing processes, and a real-time mission critical distributed information system.

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	5.000	6.809	-----	-----
RDT&E Articles Quantity – N/A				

Miniaturized Wireless Communications System (Chameleon) efforts are to develop a covert self-contained microsensor package with on-board real-time mission critical information processing and an ultra-sensitive high temperature super-conducting transceiver.

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	-----	1.947	-----	-----
RDT&E Articles Quantity – N/A				

Silicon Germanium Technology efforts are to develop viable methods to replace microcircuits that are used in high performance digital and mixed signal applications for DOD weapon systems.

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	-----	2.237	-----	-----
RDT&E Articles Quantity – N/A				

High Power Microelectronics efforts are to develop viable methods to replace high power microcircuits in the 40-volt to 100-volt range that are used in DOD weapon systems.

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	-----	1.460	-----	-----
RDT&E Articles Quantity – N/A				

Ferrite Diminishing Manufacturing Program efforts are to assess the viability of alternative approaches to and prospective technologies for the

Exhibit R-2a, RDT&E Project Justification							Date: February 2003	
Appropriation/Budget Activity RDT&E, Defense-wide BA 3			Project Name and Number – Defense Microelectronics Activity (DMEA), Project 12					
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 12: DMEA	62.400	58.321	-----	-----	-----	-----	-----	-----
RDT&E Articles Quantity - N/A								

B. Accomplishments/Planned Program: (continued)

mitigation of ferrite diminishing manufacturing source issues in microwave/millimeter-wave-based DOD weapon systems.

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	2.000	-----	-----	-----
RDT&E Articles Quantity – N/A				

Silicon-28 program efforts are to develop a viable method to deposit ultra-pure silicon in production-scale quantities. Si-28 is 10X faster than conventional silicon, requires significantly less power, generates less heat and is fully compatible with existing microelectronics fabrication processing techniques.

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	2.400	-----	-----	-----
RDT&E Articles Quantity – N/A				

Sub-Micron CMOS and CMOS/SOS Lithography efforts are to develop methods to replace highly complex microcircuits based on the higher density CMOS processes and improve our ability to make and sustain low volume source of devices.

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	2.300	-----	-----	-----
RDT&E Articles Quantity – N/A				

Strategic Radiation Hardened Microelectronics efforts are to develop design and prototyping capabilities to replace highly complex radiation hardened microcircuits to achieve form, fit, and function replacements.

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	2.500	-----	-----	-----
RDT&E Articles Quantity – N/A				

Digital Electronic Warfare (EW) efforts are to develop an advanced digital technology EW receiver to replace the existing analog technology EW receivers.

C. Other Program Funding Summary: N/A

Exhibit R-2a, RDT&E Project Justification								Date: February 2003
Appropriation/Budget Activity RDT&E, Defense-wide BA 3				Project Name and Number – Other Congressionally Added Programs (OCAs), Project 13				
Cost ($ in millions)	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Project 13: OCAs	-----	22.955	-----	-----	-----	-----	-----	-----
RDT&E Articles Quantity - N/A								

A. Mission Description and Budget Item Justification: Congressionally added programs that reflect a range of related advanced technologies.

B. Accomplishments/Planned Program:

	FY 02	FY 03	FY 04	FY 05
Accomplishment/ Effort/Subtotal Cost	-----	22.955	-----	-----
RDT&E Articles Quantity – N/A				

- HDTCC ($1.751) – Homeland Defense Technology Collaboration Center. Congressional Add. Program Management TBD. Funding will be used to create a collaborative environment among the Homeland Defense communities and to transition current technology developed for the military to homeland defense activities.
- VFCP ($6.808) – Vehicle Fuel Cell Programs. Congressional Add. US Army TACOM will oversee this add on behalf of DLA.
- FCL ($0.973) – Fuel Cell Locomotives. Congressionally Add. US Army TACOM will oversee this add on behalf of DLA.
- APD (CC DOT) ($4.184) – Agile Port Demonstrator. Congressional Add. OSD (DDR&E)/WHS will oversee this project on behalf of the DLA.
- NEMSC ($5.835) – New England Manufacturing Supply Chain. Congressional Add. DLA will work with the Department of Commerce (NIST) to jointly oversee this add.
- MRLN ($3.404) – Maintainers Remote Logistics Network - US Army TACOM will manage this add on behalf of DLA.

C. Other Program Funding Summary: N/A