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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Defense Logistics Agency **DATE:** February 2011

| APPROPRIATION/BUDGET ACTIVITY | | | | R-1 ITEM NOMENCLATURE | | | | | | | |
|---|----------------|----------------|---------------------|--|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i> | | | | PE 0603713S: <i>Deployment and Distribution Enterprise Technology (USTRANSCOM)</i> | | | | | | | |
| COST (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| Total Program Element | 29.076 | 29.109 | 41.976 | - | 41.976 | 30.342 | 30.440 | 30.747 | 31.559 | Continuing | Continuing |
| 1: <i>Capabilities Based Logistics</i> | 3.244 | 4.616 | 5.822 | - | 5.822 | 6.469 | 2.848 | 7.360 | 8.576 | Continuing | Continuing |
| 2: <i>Deployment and Distribution Velocity Management</i> | 7.551 | 3.599 | 2.320 | - | 2.320 | 4.150 | 5.100 | 4.283 | 4.511 | Continuing | Continuing |
| 3: <i>Cross Domain Intuitive Planning</i> | 1.971 | 1.106 | 6.850 | - | 6.850 | 5.550 | 1.540 | 1.399 | 1.496 | Continuing | Continuing |
| 4: <i>End-to-End Visibility</i> | 4.757 | 1.654 | 0.700 | - | 0.700 | 0.500 | 1.304 | 1.153 | 0.986 | Continuing | Continuing |
| 5: <i>Distribution Planning and Forecasting</i> | 1.000 | 4.400 | 10.614 | - | 10.614 | 5.998 | 8.998 | 5.865 | 6.320 | Continuing | Continuing |
| 6: <i>Joint Transportation Interface</i> | 8.743 | 8.022 | 5.775 | - | 5.775 | 3.250 | 6.670 | 5.981 | 5.300 | Continuing | Continuing |
| 7: <i>Distribution Protection/Safety/Security</i> | 1.810 | 5.712 | 9.895 | - | 9.895 | 4.425 | 3.980 | 4.706 | 4.370 | 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Operations (OCO) lessons learned and daily operations indicate that current distribution and logistics processes remain outdated and are rarely capable of providing required warfighter support in an agile, efficient and economical manner.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.

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| APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i> | R-1 ITEM NOMENCLATURE PE 0603713S: <i>Deployment and Distribution Enterprise Technology (USTRANSCOM)</i> |
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| B. Program Change Summary (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget | 29.356 | 29.109 | 29.024 | - | 29.024 |
| Current President's Budget | 29.076 | 29.109 | 41.976 | - | 41.976 |
| Total Adjustments | -0.280 | - | 12.952 | - | 12.952 |
| • Congressional General Reductions | | - | | | |
| • Congressional Directed Reductions | | - | | | |
| • Congressional Rescissions | -0.044 | - | | | |
| • Congressional Adds | | - | | | |
| • Congressional Directed Transfers | | - | | | |
| • Reprogrammings | - | - | | | |
| • SBIR/STTR Transfer | -0.083 | - | | | |
| • FY 2010 Congressional General Reductions | -0.153 | - | - | - | - |
| • FY 2012 Departmental Fiscal Guidance | - | - | -0.070 | - | -0.070 |
| • FY 2012 Defense Efficiency - Service | - | - | -0.078 | - | -0.078 |
| Support Contractors Reduction | | | | | |
| • FY 2012 Enhancement for USTRANSCOM | - | - | 11.000 | - | 11.000 |
| • FY 2012 Enhancement Joint Command and Control Adaptive Planinng | - | - | 2.100 | - | 2.100 |

Change Summary Explanation

FY 2010 Congressional General Reductions: \$.153M

FY 2010 SBIR Transfer: \$.083

FY 2010 Congressional Rescissions (Withhold): \$.044M

FY 2012 Congressional Fiscal Guidance: \$.070M

FY 2012 Defense Efficiency - Service Support Contractors Reduction: S .078M

FY 2012 Enhancement for USTRANSCOM: \$11.000M

FY 2012 Enhancement Joint Command and Control Adaptive Planinng: \$2.100

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Logistics Agency | | | | | | | | | DATE: February 2011 | | |
| 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 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| 1: Capabilities Based Logistics | 3.244 | 4.616 | 5.822 | - | 5.822 | 6.469 | 2.848 | 7.360 | 8.576 | 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 Programs (\$ in Millions)

| | | | |
|--|----------------|----------------|----------------|
| Title: Capabilities Based Logistics Accomplishments/Plans | FY 2010 | FY 2011 | FY 2012 |
| FY 2010 Accomplishments: Funded/supported ORTA efforts. Completed collaboration effort with ONR/OPNAV to develop ability to conduct at sea transfer of fully loaded containers within the seabase. Support AT21 Cooperative Research and Development Agreement (CRADA) efforts. | 3.244 | 4.616 | 5.822 |
| FY 2011 Plans: Continue to fund/support ORTA efforts. Begin development of capability to link together dissimilar types of service ship-to-shore causeways. Support AT21 Cooperative Research and Development Agreement (CRADA) efforts. Commence incremental development of a collaboration with other research labs and academia to focus on augmentation of human intelligence with advanced computer capabilities. | | | |
| FY 2012 Plans: Continue to develop ship-to-shore causeways linkage system to support deployment/sustainment of the warfighter in austere locations and joint logistics over the shore. Begin development of capability to off load commercial roll-on/roll-off vessels onto military causeways. Continue to fund/support ORTA efforts. Support AT21 Cooperative Research and Development Agreement (CRADA) efforts. Continue the incremental collaboration with other research labs and academia to focus on augmentation of human intelligence with advanced computer capabilities. | | | |
| Accomplishments/Planned Programs Subtotals | 3.244 | 4.616 | 5.822 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Logistics Agency | | DATE: February 2011 |
| APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i> | R-1 ITEM NOMENCLATURE PE 0603713S: <i>Deployment and Distribution Enterprise Technology (USTRANSCOM)</i> | PROJECT 1: <i>Capabilities Based Logistics</i> |
| 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. | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Logistics Agency | | | | | | | | DATE: February 2011 | | | |
| APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i> | | | | R-1 ITEM NOMENCLATURE PE 0603713S: <i>Deployment and Distribution Enterprise Technology (USTRANSCOM)</i> | | | | PROJECT 2: <i>Deployment and Distribution Velocity Management</i> | | | |
| COST (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| 2: <i>Deployment and Distribution Velocity Management</i> | 7.551 | 3.599 | 2.320 | - | 2.320 | 4.150 | 5.100 | 4.283 | 4.511 | 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 Programs (\$ in Millions) | | | | | | | | FY 2010 | FY 2011 | FY 2012 | |
| Title: Deployment and Distribution Velocity Management Accomplishments/Plans | | | | | | | | 7.551 | 3.599 | 2.320 | |
| FY 2010 Accomplishments: Completed air-skid development/assessment to move cargo/vehicles without use of vehicles with drivers or material handling equipment while at sea. Continued development/assessment of a common joint cargo handling system (JRaDS) that meets or exceeds the requirements for multiple joint operational concepts. Continued development of unique identification number for commodities in supply chain. | | | | | | | | | | | |
| FY 2011 Plans: Conduct user evaluation and commence transition activities associated with a common joint cargo handling system (JRaDS) that meets or exceeds the requirements for multiple joint operational concepts. Commence JCTD to demonstrate the military application of a commercially available Transportation Management System (TMS) to meet shortfalls in the theater distribution process. Complete development of unique identification number for commodities in supply chain. | | | | | | | | | | | |
| FY 2012 Plans: Complete JRaDS development effort and transition capability. Continue demonstration of the military application of a commercial TMS. Commence development of a domain-independent autonomous agent that integrates planning, monitoring, explanation, and goals to pursue response to unexpected events. | | | | | | | | | | | |
| Accomplishments/Planned Programs Subtotals | | | | | | | | 7.551 | 3.599 | 2.320 | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Logistics Agency | DATE: February 2011 |
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| APPROPRIATION/BUDGET ACTIVITY | R-1 ITEM NOMENCLATURE | PROJECT |
|---|--|---|
| 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i> | PE 0603713S: <i>Deployment and Distribution Enterprise Technology (USTRANSCOM)</i> | 2: <i>Deployment and Distribution Velocity Management</i> |

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

| <u>Line Item</u> | <u>FY 2010</u> | <u>FY 2011</u> | <u>FY 2012</u> <u>Base</u> | <u>FY 2012</u> <u>OCO</u> | <u>FY 2012</u> <u>Total</u> | <u>FY 2013</u> | <u>FY 2014</u> | <u>FY 2015</u> | <u>FY 2016</u> | <u>Cost To</u> <u>Complete</u> | <u>Total Cost</u> |
|---|----------------|----------------|-------------------------------|------------------------------|--------------------------------|----------------|----------------|----------------|----------------|-----------------------------------|-------------------|
| • 0603264S: <i>Agile Transportation for the 21st Century (AT21)</i> <i>Increment 3 Theater Capability Movement Requirement Visibility-Theater (MRV-T) Joint Capability Technology Demonstration (JCTD)</i> | | 0.750 | 1.000 | | 1.000 | | | | | Continuing | Continuing |
| • 0603648D8Z: <i>OSD (RFD)</i> <i>Movement Requirement Visibility-Theater (MRV-T) Joint Capability Technology Demonstration (JCTD)</i> | | 2.332 | 2.250 | | 2.250 | | | | | Continuing | Continuing |

D. Acquisition Strategy

N/A

E. Performance Metrics

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

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Logistics Agency | | | | | | | | | DATE: February 2011 | | |
| 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 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| 3: Cross Domain Intuitive Planning | 1.971 | 1.106 | 6.850 | - | 6.850 | 5.550 | 1.540 | 1.399 | 1.496 | 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 Programs (\$ in Millions)

| | | | |
|---|----------------|----------------|----------------|
| Title: Cross Domain Intuitive Planning Accomplishments/Plans | FY 2010 | FY 2011 | FY 2012 |
| FY 2010 Accomplishments: Continued efforts to enhance DDOC operations through work flow engineering. Continued collaborative effort with USMC to link tactical maintenance status/report to strategic systems. | 1.971 | 1.106 | 6.850 |
| FY 2011 Plans: Continue efforts to enhance Fusion Center 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 maintenance and logistics issues/demand forecasting to optimize supply chain. Start creating the capability for cyber surveillance and control of networks across multiple domains of the SIPR and NIPR networks (Computer Adaptive Network Defense in Depth (CANDID) JCTD). Commence efforts to translate commercial gaming into militarily useful capabilities. | | | |
| FY 2012 Plans: Complete development of capability to predict maintenance and logistics issues/demand forecasting to optimize supply chain. Complete capability for cyber surveillance and control of networks across multiple domains of the SIPR and NIPR networks (CANDID JCTD). Begin to develop a planner's capability to fine-tune the pairing of air movement requirements and resources to maximize aircraft utilization efficiency. Continue efforts to translate commercial gaming into militarily useful capabilities. | | | |
| Accomplishments/Planned Programs Subtotals | 1.971 | 1.106 | 6.850 |

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| APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i> | R-1 ITEM NOMENCLATURE PE 0603713S: <i>Deployment and Distribution Enterprise Technology (USTRANSCOM)</i> | PROJECT 3: <i>Cross Domain Intuitive Planning</i> |
|---|--|---|

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

| <u>Line Item</u> | <u>FY 2010</u> | <u>FY 2011</u> | <u>FY 2012</u> <u>Base</u> | <u>FY 2012</u> <u>OCO</u> | <u>FY 2012</u> <u>Total</u> | <u>FY 2013</u> | <u>FY 2014</u> | <u>FY 2015</u> | <u>FY 2016</u> | <u>Cost To</u> <u>Complete</u> | <u>Total Cost</u> |
|---|----------------|----------------|-------------------------------|------------------------------|--------------------------------|----------------|----------------|----------------|----------------|-----------------------------------|-------------------|
| • Fleet COMPACFLT : <i>Computer Adaptive Network Defense In-Depth (CANDID) JCTD</i> | | 2.330 | 0.500 | | 0.500 | | | | | Continuing | Continuing |
| • OSD(RFD) : <i>Computer Adaptive Network Defense In-Depth (CANDID) JCTD</i> | | 6.230 | 3.770 | | 3.770 | | | | | Continuing | Continuing |

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.

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Logistics Agency | | | | | | | | DATE: February 2011 | | | |
| APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i> | | | | R-1 ITEM NOMENCLATURE PE 0603713S: <i>Deployment and Distribution Enterprise Technology (USTRANSCOM)</i> | | | | PROJECT 4: <i>End-to-End Visibility</i> | | | |
| COST (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| 4: <i>End-to-End Visibility</i> | 4.757 | 1.654 | 0.700 | - | 0.700 | 0.500 | 1.304 | 1.153 | 0.986 | 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 Programs (\$ in Millions) | | | | | | | | FY 2010 | FY 2011 | FY 2012 | |
| Title: End-to-End Visibility Accomplishments/Plans FY 2010 Accomplishments: Continued next generation Portable Deployment Kit (PDK) effort designed to provide end-to-end visibility in austere/mobile environments. Continued development with Army/Logistics Info Agency of a mobile AIT capability in a military environment in all environments. Continue testing of advanced AIT devices for military utility. FY 2011 Plans: Complete next generation Portable Deployment Kit (PDK) effort designed to provide end-to-end visibility in austere/mobile environments. Complete development with Army/Logistics Info Agency of a mobile AIT capability in a military environment in all environments. Complete testing of advanced AIT devices for military utility. Begin effort to gain visibility over non-DoD stock during humanitarian assistants operations. Start effort to provide capability to read RFID tags from standoff distances thus increasing theater visibility coverage without increasing infrastructure. FY 2012 Plans: Continue effort to provide capability to read RFID tags from standoff distances thus increasing theater visibility coverage without increasing infrastructure. | | | | | | | | 4.757 | 1.654 | 0.700 | |
| Accomplishments/Planned Programs Subtotals | | | | | | | | 4.757 | 1.654 | 0.700 | |
| C. Other Program Funding Summary (\$ in Millions) N/A | | | | | | | | | | | |
| D. Acquisition Strategy N/A | | | | | | | | | | | |

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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.

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| APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i> | | | | R-1 ITEM NOMENCLATURE PE 0603713S: <i>Deployment and Distribution Enterprise Technology (USTRANSCOM)</i> | | | | PROJECT 5: <i>Distribution Planning and Forecasting</i> | | | |
| COST (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| 5: <i>Distribution Planning and Forecasting</i> | 1.000 | 4.400 | 10.614 | - | 10.614 | 5.998 | 8.998 | 5.865 | 6.320 | 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 Programs (\$ in Millions) | | | | | | | | FY 2010 | FY 2011 | FY 2012 | |
| Title: Distribution Planning and Forecasting Accomplishments/Plans | | | | | | | | 1.000 | 4.400 | 10.614 | |
| FY 2010 Accomplishments: Completed SLPC-CIW transition efforts. Continued M&S innovation with AFIT. Continued M&S innovation with AFIT. | | | | | | | | | | | |
| FY 2011 Plans: Commence process to determine parts failure/usage patterns and mission type/environment to initiate sustainment support actions. 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 integration of projection and sustainment planning and decision support tools into a federate suite. Continued M&S innovation with AFIT. Commence leveraging existing collaboration & situational awareness technologies to provide dynamic planning and course of action development/execution capabilities. | | | | | | | | | | | |
| FY 2012 Plans: Continue integration of projection and sustainment planning and decision support tools into a federate suite. Continue effort to build a highly configurable, agile Distribution Process Nodal Model capable of expressing and analyzing complex and detailed distribution processes at nodes. Commence process to determine parts failure/usage patterns and mission type/environment to initiate sustainment support actions. Continued M&S innovation with AFIT. Continue to leverage existing collaboration & situational awareness technologies to provide dynamic planning and course of action development/execution capabilities. Commence JFAST modernization to provide full-spectrum transportation adaptive planning and analysis in a collaborative, web-accessible, service oriented environment. | | | | | | | | | | | |
| Accomplishments/Planned Programs Subtotals | | | | | | | | 1.000 | 4.400 | 10.614 | |

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| APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i> | R-1 ITEM NOMENCLATURE PE 0603713S: <i>Deployment and Distribution Enterprise Technology (USTRANSCOM)</i> | PROJECT 5: <i>Distribution Planning and Forecasting</i> |
| 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. | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Logistics Agency | | | | | | | | | DATE: February 2011 | | |
| 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 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| 6: Joint Transportation Interface | 8.743 | 8.022 | 5.775 | - | 5.775 | 3.250 | 6.670 | 5.981 | 5.300 | 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 Programs (\$ in Millions)

| | | | |
|--|----------------|----------------|----------------|
| | FY 2010 | FY 2011 | FY 2012 |
| Title: Joint Transportation Interface Accomplishments/Plans | 8.743 | 8.022 | 5.775 |
| FY 2010 Accomplishments: Completed Common Operational Picture for Deployment and Distribution COP(D2) and continued Coalition Mobility System (CMS) JCTD efforts. Continued 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. 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). Completed 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 activities. | | | |
| FY 2011 Plans: Complete Coalition Mobility System (CMS) JCTD transition efforts. Complete 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. Complete development/commence assessment of cognitive-based visualization, alerting and optimization engine effort. Continue demonstration of semantic solutions for CGP. Commenced transition of cross domain suite of tools for joint warfighter with text chat language, translation, whiteboard, audio and XML guard functionality and commence transition activities. Commence development of tool that will increase Aerial Refueling asset and aircrew usage efficiency by increasing visibility of requirements, allocations, and asset and aircrew disposition enabling more optimal and synchronized management. Develop data | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Logistics Agency | | DATE: February 2011 | |
| APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i> | | R-1 ITEM NOMENCLATURE PE 0603713S: <i>Deployment and Distribution Enterprise Technology (USTRANSCOM)</i> | PROJECT 6: <i>Joint Transportation Interface</i> |
| B. Accomplishments/Planned Programs (\$ in Millions) | | FY 2010 | FY 2011 |
| <p>quality and standardization for decision support utilizing semantic technology. Develop cyber security methods. Commence efforts to translate social networking and crowd sourcing technologies into militarily useful capabilities.</p> <p><i>FY 2012 Plans:</i> Complete development of tool that will increase Aerial Refueling asset and aircrew usage efficiency by increasing visibility of requirements, allocations, assets, and aircrew disposition enabling more optimal and synchronized management. Complete semantic technology solution. Develop data quality and standardization for decision support utilizing semantic technology. Continue efforts to translate social networking and crowd sourcing technologies into militarily useful capabilities.</p> | | | |
| Accomplishments/Planned Programs Subtotals | | 8.743 | 8.022 |
| C. Other Program Funding Summary (\$ in Millions) N/A | | | |
| D. Acquisition Strategy N/A | | | |
| 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. | | | |

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|---|---------|---------|-----------------|---|------------------|---------|---------|---|---------|---------------------|------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Logistics Agency | | | | | | | | DATE: February 2011 | | | |
| 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 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| 7: Distribution Protection/Safety/ Security | 1.810 | 5.712 | 9.895 | - | 9.895 | 4.425 | 3.980 | 4.706 | 4.370 | 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 Programs (\$ in Millions) | | | | | | | | FY 2010 | FY 2011 | FY 2012 | |
| Title: Distribution Protection/Safety/Security Accomplishments/Plans | | | | | | | | 1.810 | 5.712 | 9.895 | |
| FY 2010 Accomplishments: Continue development of improved guidance/navigation/control systems and various delivery methods to improve the delivery accuracy of airdropped supplies and support incremental transition of successful technologies. Pursue technologies to protect networks from cyber intrusion/attack. Commenced investigation of the development of hybrid technologies in support of logistics. Investigated the effects of various chemical and biological agents on various materials used in different platforms. | | | | | | | | | | | |
| FY 2011 Plans: Continue to develop/mature technologies to improve the accuracy and the methods of airdropped supplies and incrementally field military useful technologies. Continue to develop manned/unmanned systems for point of need delivery. Commence joint precision airdrop from helicopter sling-load effort. Partner to develop manned and unmanned technologies that delivery cargo/logistics/sustainment to the point of need (Autonomous Technologies for Unmanned Air Systems (ACOS) JCTD and High Speed Container Delivery System (HSCDS) JCTD). Commence effort to decontaminate aircraft exposed to chemical warfare agents. Commence anti-piracy automated information system to increase visibility/tracking of vessels as sea. Continued investigation of the development of hybrid technologies in support of logistics. | | | | | | | | | | | |
| FY 2012 Plans: Complete joint precision airdrop from helicopter sling-load. Continue improving the accuracy and methods of joint precision airdrop. Continue to develop manned/unmanned systems for point of need delivery. Complete effort to decontaminate exposed to chemical warfare agents. Field HSCDS JCTD capabilities. Develop a low cost, one time use airdrop system that will provide assistance in the form of food and water directly to populated areas within initial days of a humanitarian disaster. Commence effort to investigate effects of chemical agents on aircraft materials and structures. | | | | | | | | | | | |
| Accomplishments/Planned Programs Subtotals | | | | | | | | 1.810 | 5.712 | 9.895 | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Logistics Agency | | | DATE: February 2011 |
| APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i> | R-1 ITEM NOMENCLATURE PE 0603713S: <i>Deployment and Distribution Enterprise Technology (USTRANSCOM)</i> | PROJECT 7: <i>Distribution Protection/Safety/Security</i> | |

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

| <u>Line Item</u> | <u>FY 2010</u> | <u>FY 2011</u> | <u>FY 2012</u> <u>Base</u> | <u>FY 2012</u> <u>OCO</u> | <u>FY 2012</u> <u>Total</u> | <u>FY 2013</u> | <u>FY 2014</u> | <u>FY 2015</u> | <u>FY 2016</u> | <u>Cost To</u> <u>Complete</u> | <u>Total Cost</u> |
|---|----------------|----------------|-------------------------------|------------------------------|--------------------------------|----------------|----------------|----------------|----------------|-----------------------------------|-------------------|
| • 6300343613: <i>US Army-AATD Autonomous Technologies for Unmanned Air Systems (ATUAS) JCTD</i> | | 1.772 | 2.747 | | 2.747 | | | | | Continuing | Continuing |
| • OSD(RFD) ATUAS: <i>Autonomous Technologies for Unmanned Air Systems (ATUAS) JCTD</i> | | 5.000 | 5.000 | | 5.000 | | | | | Continuing | Continuing |
| • OSD(RFD) HSCDS: <i>High Speed Container Delivery System (HSCDS) JCTD</i> | | 2.230 | 1.800 | | 1.800 | | | | | Continuing | Continuing |

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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