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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force **Date:** May 2017

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>					R-1 Program Element (Number/Name) PE 0604776F <i>I Deployment & Distribution Enterprise R&D</i>							
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	-	0.000	25.890	26.222	0.000	26.222	28.563	29.154	29.661	30.268	Continuing	Continuing
640211: <i>GLOBAL ACCESS</i>	-	0.000	6.513	7.212	0.000	7.212	7.776	7.549	7.702	7.860	Continuing	Continuing
640212: <i>C2/OPTIMIZATION/ MODELING AND SIMULATION</i>	-	0.000	15.534	14.127	0.000	14.127	15.552	16.207	16.479	16.816	Continuing	Continuing
640213: <i>CYBER</i>	-	0.000	3.843	4.883	0.000	4.883	5.235	5.398	5.480	5.592	Continuing	Continuing

Note

This program, BA 04 PE 0604776F, project 640211, Hybrid Airship, is a new start.
This program, BA 04 PE 0604776F, project 640211, Mini Robotic Dredge, is a new start.

This program, BA 04 PE 0604776F, project 640212, Modeling & Simulation Innovation, is a new start.
This program, BA 04 PE 0604776F, project 640212, Full Spectrum Mission Assurance, is a new start.
This program, BA 04 PE 0604776F, project 640212, Modeling Dynamics of Modular Causeways to Improve Debarkation Sites, is a new start.
This program, BA 04 PE 0604776F, project 640212, Web Based Seaport Explosive Safety Planning, is a new start.

A. Mission Description and Budget Item Justification

This USTRANSCOM program provides for the development, integration and demonstration of capabilities which improve deployment, distribution and supply chain decision-making/collaboration (e.g., planning stage to real-time execution/retrograde operations) without need for highly specialized operators. Projects address the following: decision support tools, distribution process simulations/analytics, distribution demand forecasting/execution monitoring, automated decision-maker support (e.g., queuing, alerting, courses of action), automated status monitoring with information fusion to include drilldown capability, and resilient Command and Control (C2) infrastructure capabilities. Current planning/forecasting/collaboration capabilities do not permit full synchronization of people, processes and assets to execute planned operations. Automated tools must be able to dynamically analyze/predict demand and provide input to advanced distribution planning systems to include the capability for Combatant Commanders to manage theater transportation operations from the port of debarkation to the point of need. Transportation information exchange across the DOD is inhibited by disparate systems, multiple data standards and insufficient interfaces. The ability to rapidly determine the impact of any delays/changes and conduct "what -if" impact assessments on the closure of force packages is required. This program addresses the required mission support to combatant commanders and other customers in the area of C2, Optimization, and Modeling and Simulations.

This program is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.

FY18 New Starts include Full Spectrum Mission Assurance, Modeling the Dynamics of Modular Causeway System, Web Based Seaport Explosives Safety Planning(640212) and Mini Robotics Dredge (640211).

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Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3600: Research, Development, Test & Evaluation, Air Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 0604776F I Deployment & Distribution Enterprise R&D			
B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	0.000	25.890	26.147	0.000	26.147
Current President's Budget	0.000	25.890	26.222	0.000	26.222
Total Adjustments	0.000	0.000	0.075	0.000	0.075
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	0.075	0.000	0.075
Change Summary Explanation					
In FY 2017, PE 0603713S (BA3) Deployment and Distribution Enterprise Technology (DDET) and PE 0603264S (BA3) Agile Transportation for the 21st Century Theater were transferred to a single PE in the Air Force budget (PE0604776F, (BA4) Deployment and Distribution Enterprise (DDE))in order to support auditability, increase management efficiency, and reduce administrative actions.					

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600 / 4					R-1 Program Element (Number/Name) PE 0604776F / Deployment & Distribution Enterprise R&D				Project (Number/Name) 640211 / GLOBAL ACCESS			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
640211: GLOBAL ACCESS	-	0.000	6.513	7.212	0.000	7.212	7.776	7.549	7.702	7.860	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note												
This program, BA 04 PE 0604776F, project 640211, Hybrid Airship, is a new start.												
This program, BA 04 PE 0604776F, project 640211, Mini Robotic Dredge, is a new start.												
In FY 2017, PE 0603713S (BA3) Deployment and Distribution Enterprise Technology (DDET) and PE 0603264S (BA3) Agile Transportation for the 21st Century Theater were transferred to a single PE in the Air Force budget (PE0604776F, (BA4) Deployment and Distribution Enterprise (DDE))in order to support auditability, increase management efficiency, and reduce administrative actions.												
A. Mission Description and Budget Item Justification												
This program provides for the development, integration, demonstration and detailed assessment of DOD procedures/technologies targeted at optimizing throughput at the nodes as well as across the conduits of the deployment and distribution supply chains, from origin to point of use as well as return. Needed capabilities include inventory/cargo management, materiel handling innovations, improved physical node access, port throughput improvements, innovative delivery methods (e.g., precision airlift, autonomous re-supply), and cargo/container security. 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, manned/unmanned systems to the point of effect, and increased global reach in austere/anti-access environments.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2016	FY 2017	FY 2018	
Title: Preamble Initial Look Leading to Accelerated Results									-	1.600	-	
Description: Develop capability to support a deployed engineering assessment team in the expedient recon and load-capacity determination of offload structures and plan/design required repairs.												
FY 2017 Plans:												
TRL 5-7: Prototype a remotely operated vehicle capability that provide rapid/accurate assessment of pier conditions both above and below the waterline to expedite repairs.												
Title: Port Improvement via Exigent Repair (PIER) JCTD									-	2.650	1.212	
Description: Develop robust capability to rapidly restore damaged pier to a minimal militarily-capable to support reception, power projection & sustainment operations.												
FY 2017 Plans:												

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force		Date: May 2017	
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604776F / <i>Deployment & Distribution Enterprise R&D</i>	Project (Number/Name) 640211 / <i>GLOBAL ACCESS</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017
TRL 5-7: AT&L endorsed, Congressionally approved BA3 Joint Capability Technology Demonstration (JCTD) to rapidly restore damaged pier to a minimal militarily-capable to support reception, power projection & sustainment operations. FY 2018 Plans: TRL 5-7: AT&L endorsed, Congressionally approved BA3 Joint Capability Technology Demonstration (JCTD) to rapidly restore damaged pier to a minimal militarily-capable to support reception, power projection & sustainment operations.			
Title: Enhanced Vision Navigation for Joint Precision Airdrop System Description: Enhance capability of a guided airdrop system to navigate in contested/denied environments where Global Positioning System data is either suspect or unavailable. FY 2017 Plans: TRL 5: U.S. Army (Natick) led effort to prototype technologies to enable accurate delivery of airdropped supplies in a Global positioning System (GPS) denied environment. FY 2018 Plans: TRL 5-7: Continue U.S. Army (Natick) led effort to prototype technologies to enable accurate delivery of airdropped supplies in a Global positioning System (GPS) denied environment.		-	1.363
Title: Expeditionary End-to-End Fueling Concept Description: Addressing gap in theater fuel delivery/distribution capabilities to inform the development of the Army Early Entry Fluid Distribution System as well as provide a development path for Navy/USMC ship-to-shore capabilities. FY 2017 Plans: TRL 5/6: Prototyping modular pumping system to enhance over-the-shore and inland petroleum discharge capability. FY 2018 Plans: TRL 5/6: Prototyping modular pumping system to enhance over-the-shore and inland petroleum discharge capability.		-	0.250
Title: Dropsonde Optimization Description: Mobility assets lack drop zone situational awareness, pre-drop confirmation of clear/safe drop zone, capability of post-drop assessment, and autonomous/passive bundle geo-location. FY 2017 Plans:		-	0.200
			0.455

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B. Accomplishments/Planned Programs (\$ in Millions)										FY 2016	FY 2017	FY 2018
TRL 4-7: Provide a single pass solution based on wind/weather impact from information gained at an optimized/planned drop zone. FY 2018 Plans: TRL 4-7: Provide a single pass solution based on wind/weather impact from information gained at an optimized/planned drop zone.												
Title: Precision On-Demand Aerial Resupply Description: Develop a precision on-demand Aerial Resupply capability to provide small units in remote/austere locations the ability to request and track aerial resupply missions in real-time. FY 2017 Plans: TRL 5-7: Combines android smartphones, tactical radios, bundle tracking system, beacon technologies, Air National Guard LITENING Pod, DOD Iridum Gateway & Joint Precision Air Drop System Mission Planner into a prototype to facilitate on-demand resupply.										-	0.450	-
Title: Hybrid Airship Description: Study serves as a risk reducing, stepping stone to a class of air vehicles with energy use per ton-mile approximating the efficiency achieved by overland commercial trucking on improved highway systems. FY 2018 Plans: TRL 4: Explore future Airship development and mitigate long-term technical risk for future heavy lift airships.										-	-	0.220
Title: Mini Robotic Dredge Description: Prototype a tactical dredging capability to deepen an usable port facility FY 2018 Plans: TRL 5/6: Ability to clear a shipping lane/berthing area to allow for pier side unloading operations.										-	-	0.950
Accomplishments/Planned Programs Subtotals										-	6.513	7.212
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost	
• N/A: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-	

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C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2018</u>	<u>FY 2018</u>	<u>FY 2018</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Complete</u>	<u>Total Cost</u>
Remarks											
D. Acquisition Strategy											
Requirements for joint deployment and distribution enterprise technology enhancements are annually identified, validated and prioritized by the Joint Deployment & Distribution Enterprise (JDDE) community. Pursuit of the development of new capabilities to meet these requirements is managed by the United States Transportation Command (USTRANSCOM). Prototype products, once evaluated by the users, are spirally transitioned by the operational community.											
E. Performance Metrics											
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.											

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600 / 4					R-1 Program Element (Number/Name) PE 0604776F / <i>Deployment & Distribution Enterprise R&D</i>				Project (Number/Name) 640212 / <i>C2/OPTIMIZATION/MODELING AND SIMULATION</i>			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
640212: <i>C2/OPTIMIZATION/MODELING AND SIMULATION</i>	-	0.000	15.534	14.127	0.000	14.127	15.552	16.207	16.479	16.816	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 04 PE 0604776F, project 640212, Modeling & Simulation Innovation, is a new start.
This program, BA 04 PE 0604776F, project 640212, Full Spectrum Mission Assurance, is a new start.
This program, BA 04 PE 0604776F, project 640212, Modeling Dynamics of Modular Causeways to Improve Debarkation Sites, is a new start.
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A. Mission Description and Budget Item Justification

This program provides for the development, integration, demonstration and detailed assessment of capabilities which improve deployment, distribution and supply chain decision-making/collaboration (e.g., planning stage to real-time execution/retrograde operations) without need for highly specialized operators. Projects in this area address the following: decision support tools, distribution process simulations/analytics, distribution demand forecasting/execution monitoring, automated decision-maker support (e.g., queuing, alerting, courses of action), automated status monitoring with information fusion to include drilldown capability, and resilient Command & Control (C2) infrastructure capabilities. Current planning, forecasting, and collaboration capabilities do not permit full synchronization of people, processes and assets to execute planned operations. Automated tools must be able to dynamically analyze/predict demand and provide input to advanced distribution planning systems to include the capability for Combatant Commanders to manage theater transportation operations from the port of debarkation to the point of need. Transportation information exchange across the DOD is inhibited by disparate systems, multiple data standards and insufficient interfaces. The ability to rapidly determine the impact of any delays/ changes and conduct "what-if" impact assessments on the closure of force packages is required. This project addresses the required mission support to combatant commanders and other customers in the area of C2, Optimization, and Modeling and Simulations.

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

	FY 2016	FY 2017	FY 2018
Title: Analytics Driven Command Decision Support	-	0.960	0.979
Description: Developing the capability that improves organizational decision making by providing a holistic methodology that capitalizes on relevant information, captures accurate data, and leverages best practice tools and decision-making processes.			
FY 2017 Plans:			

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2016	FY 2017	FY 2018
TRL 5: Operational prototype of analytic tool & user manual to enable analytics drive command decision support					
FY 2018 Plans: TRL 5-7: Operational prototype of analytic tool & user manual to enable analytics drive command decision support					
Title: Data Lake Description: Develop and demonstrate the capability that allows incongruent data to be brought together to provide automated decision support. FY 2017 Plans: TRL 4-6: Researching application and prototyping this technology as it relates to the Joint Deployment and Distribution enterprise. FY 2018 Plans: TRL 4-7: Researching application and prototyping this technology as it relates to the Joint Deployment and Distribution enterprise.			-	0.600	0.700
Title: End-to-End Deployment and Distribution Modeling Description: Provide an integrated deployment/distribution environment to provide continuous and optimal balancing of total demand verse capacity from planning through mission execution. FY 2017 Plans: TRL 4-6: Assessment of various algorithmic optimization approaches. FY 2018 Plans: TRL 4-6: Assessment of various algorithmic optimization approaches to provide a complete view of the end-to-end mobility system, air refueling (AR) tankers need to be integrated with USTRANSCOM's analytical tool suite for programmatic studies and analysis.			-	3.925	1.963
Title: Global Mission Scheduling Description: Development effort to optimize air movement requirements against resources and movement requirements. FY 2017 Plans: TRL 4-7: Cognitively engineered prototype to facilitate detailed Tactical Air Control Center (Air Mobility Command) mission planning, scheduling and execution			-	1.925	-
Title: Map Based Planning Services Description: Enable planners, via a collaborative geospatially enabled environment, to conduct deliberate course of action planning to include force flow feasibility concurrent with plan development.			-	1.500	1.500

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Appropriation/Budget Activity 3600 / 4		R-1 Program Element (Number/Name) PE 0604776F / Deployment & Distribution Enterprise R&D	Project (Number/Name) 640212 / C2/OPTIMIZATION/MODELING AND SIMULATION		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2016	FY 2017	FY 2018
FY 2017 Plans: TRL 4-6: Prototype globally accessible enclave and explore how data with a geospatial element can be visualized in a geo-temporal context to enhance Combatant Command planning.					
FY 2018 Plans: TRL 4-6: Prototype globally accessible enclave and explore how data with a geospatial element can be visualized in a geo-temporal context to enhance Combatant Command planning.					
Title: Massachusetts Institute of Technology Lincoln Labs Description: Partnership with MIT-LL to research efforts to improve enterprise operational architecture supporting high-end analytics, integrated information technology/data structures, understanding of cloud capabilities and multi-level cyber security defense. FY 2017 Plans: TRL 4-6: Multi-faceted effort prototyping, via Lincoln Secure Enclave Lab, numerous technologies to enhance operational analytics; data integration, mining, & forensic analytics, etc. FY 2018 Plans: TRL 4-6: Multi-faceted effort prototyping, via Lincoln Secure Enclave Lab, numerous technologies to enhance operational analytics; data integration, mining, & forensic analytics, etc.			-	1.370	2.325
Title: Modeling & Simulation Innovation Description: Select student research/faculty-assisted projects (e.g., Joint Transportation Asset Scheduling Kit, Next Generation Cargo Capability, Applying Post Modern Portfolio Theory to Mitigate Risk in International Shipping, Optimal CH-47/C-130 Workload Balance, Remotely Piloted Aircraft Performing Airdrop Mission). FY 2018 Plans: TRL 4-7: Collaborative partnership with Air Force Institute of Technology for graduate research addressing Joint Deployment and Distribution Enterprise challenges.			-	-	0.125
Title: Support Planning for Air Refueling Tasking and Allocation Description: Provide collaborative decision aid to enable planners to the optimize use of the worldwide Active Duty, Air National Guard and Air Force Reserve Air Refueling fleets while maintaining or increasing operational effectiveness, agility and capacity. FY 2017 Plans:			-	1.288	0.162

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force			Date: May 2017		
Appropriation/Budget Activity 3600 / 4		R-1 Program Element (Number/Name) PE 0604776F / <i>Deployment & Distribution Enterprise R&D</i>		Project (Number/Name) 640212 / <i>C2/OPTIMIZATION/MODELING AND SIMULATION</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2016	FY 2017	FY 2018
TRL 4/5: Prototype the capability for air refueling planners an integrated human-in-the-loop and machine based cooperative system to optimizing global air refueling operations. FY 2018 Plans: TRL 4-7: Prototype the capability for air refueling planners an integrated human-in-the-loop and machine based cooperative system to optimizing global air refueling operations.					
Title: Strategies for Enterprise Metadata Management Description: Comprehensive account of strategies, optional implementations and recommendations for enterprise-wide management of metadata. FY 2017 Plans: TRL 4-6: Collect, populate and prototype metadata tools and applications. FY 2018 Plans: TRL 4-7: Collect, populate and prototype metadata tools and applications.			-	1.000	0.500
Title: Technology Transfer Description: U. S. Transportation Command uses Technology Transfer mechanisms of the Federal Laboratories to facilitate voluntary collaboration by experts from government, industry, and academia, revealing the costs and benefits of innovations, to understand the feasibility of future capabilities. FY 2017 Plans: TRL 4 - 6: Continue to actively promote and broker Cooperative Research and Development Agreements (CRADAs) between DOD labs and industry for development of technology with both commercial and military applications. This activity will particularly focus on non-traditional defense contractors and is intended to help lower the expense of new defense-related technology development through cost-sharing with industry and to help DOD benefit from private-sector technology investments and innovations. Continue to actively market DOD-developed technologies to U.S. companies and establish Patent License Agreements to commercialize these technologies for both civilian and military. FY 2018 Plans: TRL 4 - 6: Continue to actively promote and broker Cooperative Research and Development Agreements (CRADAs) between DOD labs and industry for development of technology with both commercial and military applications. This activity will particularly focus on non-traditional defense contractors and is intended to help lower the expense of new defense-related technology development through cost-sharing with industry and to help DOD benefit from private-sector technology investments and			-	0.151	0.285

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2016	FY 2017	FY 2018
innovations. Continue to actively market DOD-developed technologies to U.S. companies and establish Patent License Agreements to commercialize these technologies for both civilian and military.					
Title: Program Execution			-	2.815	3.848
Description: Provide technical assistance and program management support to the USTRANSCOM RDT&E Program.					
FY 2017 Plans: TRL 4-6: Program support to explore technology solutions to capability gaps identified through Joint Concept Development documents, the Joint Capabilities Integration and Development System process, Joint Experimentation, etc. to increase the responsiveness, efficiency and effectiveness of the Joint Deployment & Distribution Enterprise.					
FY 2018 Plans: TRL 4-6: Program support to explore technology solutions to capability gaps identified through Joint Concept Development documents, the Joint Capabilities Integration and Development System process, Joint Experimentation, etc. to increase the responsiveness, efficiency and effectiveness of the Joint Deployment & Distribution Enterprise.					
Title: Full Spectrum Mission Assurance			-	-	0.960
Description: All-threats/hazards, collaborative transportation risk management activity to identify unacceptable physical/cyber risks					
FY 2018 Plans: TRL 5-7: An operational picture environment fed by standardized, reusable, and shareable data layers of actionable info.					
Title: Modeling Dynamics of Modular Causeways to Improve Debarkation Sites			-	-	0.300
Description: High-fidelity model to provide planners with precise knowledge of Modular Causeway behavior.					
FY 2018 Plans: TRL 4-7: Developing the ability to simulate causeway operations in order to enhance joint logistics over-the-shore.					
Title: Web Based Seaport Explosive Safety Planning			-	-	0.480
Description: Provide seaport planners capability to manage net explosive weight/hazard munitions					
FY 2018 Plans: TRL 4-6: Reduce planner port layout from 80 to 5 hours					
Accomplishments/Planned Programs Subtotals			-	15.534	14.127

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C. Other Program Funding Summary (\$ in Millions)											
			FY 2018	FY 2018	FY 2018						Cost To
Line Item	FY 2016	FY 2017	Base	OCO	Total	FY 2019	FY 2020	FY 2021	FY 2022	Complete	Total Cost
• N/A: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
Remarks											
D. Acquisition Strategy											
Requirements for joint deployment and distribution enterprise technology enhancements are annually identified, validated and prioritized by the Joint Deployment & Distribution Enterprise (JDDE) community. Pursuit of the development of new/improved capabilities to meet these requirements is managed by the United States Transportation Command (USTRANSCOM). Prototype products, once evaluated by the users, are spirally transitioned by the operational community.											
E. Performance Metrics											
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.											

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force												Date: May 2017			
Appropriation/Budget Activity 3600 / 4						R-1 Program Element (Number/Name) PE 0604776F / <i>Deployment & Distribution Enterprise R&D</i>						Project (Number/Name) 640212 / <i>C2/OPTIMIZATION/MODELING AND SIMULATION</i>			
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-
Support (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support	Various	Various : Belleville, IL	-	0.000		14.864	Nov 2016	13.270	Nov 2017	0.000		13.270	Continuing	Continuing	-
Subtotal			-	0.000		14.864		13.270		0.000		13.270	-	-	-
Remarks Funds will be realigned within PE.															
Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-
Management Services (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Support PMO	Various	Various : Belleville, IL	-	0.000		0.670	Apr 2016	0.857	Apr 2017	0.000		0.857	Continuing	Continuing	-
Subtotal			-	0.000		0.670		0.857		0.000		0.857	-	-	-
			Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	0.000		15.534		14.127		0.000		14.127	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force							Date: May 2017			
Appropriation/Budget Activity 3600 / 4				R-1 Program Element (Number/Name) PE 0604776F / Deployment & Distribution Enterprise R&D			Project (Number/Name) 640212 / C2/OPTIMIZATION/MODELING AND SIMULATION			
	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract	
Remarks										

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 Air Force																Date: May 2017			
Appropriation/Budget Activity 3600 / 4								R-1 Program Element (Number/Name) PE 0604776F / Deployment & Distribution Enterprise R&D								Project (Number/Name) 640212 / C2/OPTIMIZATION/MODELING AND SIMULATION			

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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Air Force			Date: May 2017
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604776F / <i>Deployment & Distribution Enterprise R&D</i>	Project (Number/Name) 640212 / <i>C2/OPTIMIZATION/MODELING AND SIMULATION</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Integrated Logistics Support	1	2017	4	2021

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600 / 4					R-1 Program Element (Number/Name) PE 0604776F / Deployment & Distribution Enterprise R&D				Project (Number/Name) 640213 / CYBER			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
640213: CYBER	-	0.000	3.843	4.883	0.000	4.883	5.235	5.398	5.480	5.592	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note In FY 2017, PE 0603713S (BA3) Deployment and Distribution Enterprise Technology (DDET) and PE 0603264S (BA3) Agile Transportation for the 21st Century Theater were transferred to a single PE in the Air Force budget (PE0604776F, (BA4) Deployment and Distribution Enterprise (DDE))in order to support auditability, increase management efficiency, and reduce administrative actions.												
A. Mission Description and Budget Item Justification This program provides for the development, integration, demonstration and detailed assessment of capabilities to ensure USTRANSCOM mission assurance is in a persuasive/dynamic cyber environment. USTRANSCOM requires the procedures/technologies to improve cyber surveillance and control of networks across multiple domains and the ability to continue critical network operations in contested unclassified and classified network environments. The Command also needs the ability to differentiate between valid/unauthorized users and determine/quantify the trustworthiness of hardware/software systems. Additionally USTRANSCOM must have the ability to rapidly analyze & correlate data regarding malicious activities, select/evoke real-time defense actuators, perform automated reasoning capabilities that address data quality issues, and the ability to rapidly return to a known/safe operating state.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2016	FY 2017	FY 2018	
Title: Cyber Mission Assurance Capability Description: Interface with existing sensor data to provide input for analyses of mission impact, mission performance, and mission effectiveness so appropriate alerts and courses of action can be developed, disseminated, and coordinated. FY 2017 Plans: TRL 5: Improved productivity, survivability, and efficiencies; reduced time/effort to respond to disruptive network events/cyber threats FY 2018 Plans: TRL 5-7: Improved productivity, survivability, and efficiencies; reduced time/effort to respond to disruptive network events/cyber threats									-	1.660	0.900	
Title: Identity and Access Management Description: Need secure means to credential user access to proper applications & data via single sign approach. FY 2017 Plans:									-	0.300	0.670	

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force								Date: May 2017					
Appropriation/Budget Activity 3600 / 4				R-1 Program Element (Number/Name) PE 0604776F / Deployment & Distribution Enterprise R&D				Project (Number/Name) 640213 / CYBER					
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2016		FY 2017		FY 2018	
TRL 4/5: Researching to deliver to the enterprise a set of prototype custom attribute solutions.													
FY 2018 Plans: TRL 4-7: Researching to deliver to the enterprise a set of prototype custom attribute solutions.													
Title: Operationalizing Cyber Security Description: Provide USTRANSCOM Joint Cyber Center (JCC) organizational effectiveness tools to enhance cyber-security operations, plans & processes. FY 2017 Plans: TRL 4-6: Prototype an advanced cyber-security Command and Control model as well as extend research on non-intrusive data gathering to enhance Joint Cyber Center operations. FY 2018 Plans: TRL 4-7: Prototype an advanced cyber-security Command and Control model as well as extend research on non-intrusive data gathering to enhance Joint Cyber Center operations.								-		0.969		0.988	
Title: Lincoln Labs Description: Partnership with MIT-LL to research efforts to improve enterprise operational architecture supporting high-end analytics, integrated information technology/data structures, understanding of cloud capabilities and multi-level cyber security defense. FY 2017 Plans: TRL 4-6: Multi-faceted effort prototyping, via Lincoln Secure Enclave Lab, numerous technologies to enhance cyber analytics, forensics, etc. FY 2018 Plans: TRL 4-7: Multi-faceted effort prototyping, via Lincoln Secure Enclave Lab, numerous technologies to enhance cyber analytics, forensics, etc.								-		0.914		2.325	
Accomplishments/Planned Programs Subtotals								-		3.843		4.883	
C. Other Program Funding Summary (\$ in Millions)													
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost		
• N/A: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-		

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force										Date: May 2017	
Appropriation/Budget Activity 3600 / 4				R-1 Program Element (Number/Name) PE 0604776F / <i>Deployment & Distribution Enterprise R&D</i>				Project (Number/Name) 640213 / <i>CYBER</i>			
C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2018</u>	<u>FY 2018</u>	<u>FY 2018</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Complete</u>	<u>Total Cost</u>
Remarks											
D. Acquisition Strategy											
Requirements for joint deployment and distribution enterprise technology enhancements are annually identified, validated and prioritized by the Joint Deployment & Distribution Enterprise (JDDE) community. Pursuit of the development of new/improved capabilities to meet these requirements is managed by the United States Transportation Command (USTRANSCOM). Prototype products, once evaluated by the users, are spirally transitioned by the operational community.											
E. Performance Metrics											
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.											