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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 3: Advanced Technology Development (ATD)</i>	R-1 Program Element (Number/Name) PE 0604776F / <i>Deployment & Distribution Enterprise R&D</i>
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	27.762	0.000	27.762	28.403	28.985	30.034	30.628	Continuing	Continuing
630004: <i>Deployment and Distribution Development & Proto</i>	-	0.000	0.000	27.762	0.000	27.762	28.403	28.985	30.034	30.628	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

- This program, BA 3, PE 0604776F, project 630004, Autonomous Pallet Loader, is a new start.
- This program, BA 3, PE 0604776F, project 630004, Dynamic Intelligent Analysis Notification, is a new start.
- This program, BA 3, PE 0604776F, project 630004, Distributed Littoral Ops Fuel Transfer, is a new start.
- This program, BA 3, PE 0604776F, project 630004, Information Summarization for Complex Knowledge Management, is a new start.
- This program, BA 3, PE 0604776F, project 630004, Internal Sling-load Unit Airdrop, is a new start.
- This program, BA 3, PE 0604776F, project 630004, Jet Augmented Glider, is a new start.
- This program, BA 3, PE 0604776F, project 630004, Sustainment Support Network for Autonomous Aerial Resupply Vehicles, is a new start.
- This program, BA 3, PE 0604776F, project 630004, System for Expeditionary Port Assessment and Repair, is a new start.
- This program, BA 3, PE 0604776F, project 630004, Automatic Landing Zone, is a new start.

Starting in FY25 the PE was split between two project codes (BA3 630004 and BA4 640216)

A. Mission Description and Budget Item Justification

Provides for the collaborative development, integration, lab demonstration and assessment of contested environment JDDE and JPE capabilities. Needed capabilities include: innovation in delivery methods, seaport and airfield improvements, inventory/cargo management, materiel handling, cargo/container security, secure collaboration with commercial/interagency/coalition partners, and distributed global mobility C4

This program is in Budget Activity 3, Advanced Technology Development because this budget activity includes development of subsystems and components and efforts to integrate subsystems and components into system prototypes for field experiments and/or tests in a simulated environment.

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B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	
Previous President's Budget	0.000	0.000	0.000	0.000	0.000	
Current President's Budget	0.000	0.000	27.762	0.000	27.762	
Total Adjustments	0.000	0.000	27.762	0.000	27.762	
• 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	27.762	0.000	27.762	
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2023	FY 2024	FY 2025
Title: TRANSCOM Innovation				0.000	0.000	1.515
Description: Rapidly develop and integrate technology solutions for the enterprise						
FY 2024 Plans: NA						
FY 2025 Plans: Continue to pursue and develop solutions to identified challenges						
FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216						
Title: Data Lakes				-	0.000	0.646
Description: Demonstrating the value of a comprehensive user profiling system to threat intelligence, continuous authentication, and automated threat response.						
FY 2024 Plans: FY24 plans in project 640216						
FY 2025 Plans: Continue to demonstrate the value of a comprehensive user profiling system to threat intelligence, continuous authentication, and automated threat response.						
FY 2024 to FY 2025 Increase/Decrease Statement:						

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
FY24 in project 640216				
<p>Title: Airdrop Mission Planner Multiservice Interoperability</p> <p>Description: Seamlessly conduct joint airdrop missions with a shared mission profile/solution between services</p> <p>FY 2024 Plans: FY24 in project 640216</p> <p>FY 2025 Plans: Streamline multiservice TTPs and regulation/instruction through the technical implementation</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216</p>		-	0.000	0.948
<p>Title: End-to-End Distribution Modeling</p> <p>Description: Developing the model of record for all programmatic analysis for transportation/distribution.</p> <p>FY 2024 Plans: FY24 plans in project 640216</p> <p>FY 2025 Plans: Continue to provide research and development to design and prototype foundational level changes to the AMP-Core simulation engine necessary to provide the appropriate framework to accommodate challenging capability requirements for evolving CONOPs, as well as to position the tool well to advance and sustain analytic capabilities.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216</p>		-	0.000	1.760
<p>Title: Autonomous Pallet Loader</p> <p>Description: A highly transportable, heavy-lift, autonomous material handling system</p> <p>FY 2024 Plans: FY25 New Start</p> <p>FY 2025 Plans: Update the mechanical and electrical sub-system designs</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p>		-	0.000	0.450

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
FY25 New Start				
<p>Title: Dynamic Intelligent Analysis Notification</p> <p>Description: Produce a set of suggested mission changes based off the ultimate mission purpose and the associated constraints</p> <p>FY 2024 Plans: FY25 New Start</p> <p>FY 2025 Plans: Investigation of potential, streamlined use cases related to mission replanning to explore the use of generative AI within the 618th AOC and AMC/A9.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: FY25 New Start</p>		-	0.000	0.600
<p>Title: Distributed Littoral Ops Fuel Transfer</p> <p>Description: A portable towing and hauling device that can automatically traverse tensioned lines from ship to shore while hauling a flexible fueling hose</p> <p>FY 2024 Plans: FY25 New Start</p> <p>FY 2025 Plans: NSWC Carderock and USTRANSCOM to confirm requirements for technical performance and operational needs. System architecture established, feasibility calculations confirmed.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: FY25 New Start</p>		-	0.000	0.300
<p>Title: Information Summarization for Complex Knowledge Management</p> <p>Description: Create succinct summaries of related information samples, facilitating improved information discovery and understanding</p> <p>FY 2024 Plans: FY25 New Start</p> <p>FY 2025 Plans:</p>		-	0.000	0.200

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
Documentation describing identified use case(s) and challenges the prototype will address.# Documentation of the end-to-end process of gathering, organizing, and refining data from multiple sources. FY 2024 to FY 2025 Increase/Decrease Statement: FY25 New Start				
Title: Internal Sling-load Unit Airdrop Description: Capability to airdrop the Internal airlift/helicopter Slingable-Container Unit (ISU) from large, fixed-wing mobility aircraft FY 2024 Plans: FY25 New Start FY 2025 Plans: Develop ISU Airdrop Kit and ground testing FY 2024 to FY 2025 Increase/Decrease Statement: FY25 New Start		-	0.000	0.400
Title: Jet Augmented Glider Description: An autonomous long-range, low-cost, one-time use powered glider resupply vehicle which can be deployed from cargo aircraft, rotorcraft, ships, or from the ground FY 2024 Plans: FY25 New Start FY 2025 Plans: Design review and follow on design FY 2024 to FY 2025 Increase/Decrease Statement: FY25 New Start		-	0.000	1.000
Title: Sustainment Support Network for Autonomous Aerial Resupply Vehicles Description: Integrated solution that automatically sources, processes, synthesizes, and distributes data to aerial resupply vehicles FY 2024 Plans:		-	0.000	0.650

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
FY25 New Start				
FY 2025 Plans: Data Collection and Integration				
FY 2024 to FY 2025 Increase/Decrease Statement: FY25 New Start				
Title: System for Expeditionary Port Assessment and Repair		-	0.000	0.500
Description: Joint capability to counter asymmetric A2/AD seaport degradation activities by building on a suite of demonstrated port assessment and pier repair tools				
FY 2024 Plans: FY25 New Start				
FY 2025 Plans: Architecture Design and testing				
FY 2024 to FY 2025 Increase/Decrease Statement: FY25 New Start				
Title: Aerial Delivery - Low Cost Modular GPS Denied Kit		-	0.000	1.750
Description: Demonstrate a low size, weight, power and cost kit that can provide GPS-denied navigation, aerial delivery platforms				
FY 2024 Plans: FY24 plans in project 640216				
FY 2025 Plans: Develop GPS denied software				
FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216				
Title: Airdrop System - Precision Extended Glide		-	0.000	1.600
Description: Demonstrate a long range powered parafoil system to reduce risk to delivery aircraft				
FY 2024 Plans:				

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
FY24 plans in project 640216 FY 2025 Plans: Component integration and development FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216				
Title: Automatic Landing Zone Description: Aid selection of a LZ/DZ by presenting the user with a map-based course of action decision tool, at point of need FY 2024 Plans: FY25 New Start FY 2025 Plans: Begin system development FY 2024 to FY 2025 Increase/Decrease Statement: FY25 New Start		-	0.000	0.500
Title: Container Airdrop Description: Enable the airdrop of a standard 20ft ISO container from a C-17 utilizing standard low altitude airdrop methods FY 2024 Plans: FY24 plans in project 640216 FY 2025 Plans: Begin integration of components FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216		-	0.000	1.133
Title: Expeditionary Concrete Construction for Ports of Debarkation Description: Use indigenous materials for contingency construction while minimizing logistics required to enable the construction		-	0.000	1.000

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>FY 2024 Plans: FY24 plans in project 640216</p> <p>FY 2025 Plans: Begin integration of components</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216</p>				
<p>Title: Global Reach</p> <p>Description: Tactical Situation, COP, mission planning, intelligence, communications resiliency, ship survivability capabilities</p> <p>FY 2024 Plans: FY24 plans in project 640216</p> <p>FY 2025 Plans: Begin design development phase</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216</p>		-	0.000	2.328
<p>Title: Scalable Autonomous Modular Propulsion Kits</p> <p>Description: Develop scalable modular propulsion kits with marine automation for installation on ocean/riverine commercial barges</p> <p>FY 2024 Plans: FY24 Plans in project 640216</p> <p>FY 2025 Plans: Autonomous control system used to convert manned vessels to autonomous unmanned capability</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216</p>		-	0.000	1.000
<p>Title: Enhanced Vision Navigation for Joint Precision Airdrop System</p>		-	0.000	0.550

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>Description: Support to oversee the development of advanced technologies to improve airdrop and other capabilities to the warfighter.</p> <p>FY 2024 Plans: FY24 in project 640216</p> <p>FY 2025 Plans: Monitor projects progression to ensure costs, schedule, performance</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216</p>				
<p>Title: AI-Powered Sensitive Data Masking</p> <p>Description: Focus on masking structured data, building an organizational knowledge base, and masking unstructured data</p> <p>FY 2024 Plans: FY24 plans in project 640216</p> <p>FY 2025 Plans: Continue to Identify a focused subset of operational data that is commonly shared across trusted partners.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216</p>		-	0.000	0.600
<p>Title: Massachusetts Institute of Technology Lincoln Labs</p> <p>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.</p> <p>FY 2024 Plans: FY24 plans in project 640216</p> <p>FY 2025 Plans: Multiple efforts to increase decision support</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p>		-	0.000	3.100

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
FY24 in project 640216				
<p>Title: Modeling & Simulation Innovation</p> <p>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).</p> <p>FY 2024 Plans: FY24 plans in project 640216</p> <p>FY 2025 Plans: Collaboration partnership with AFIT for student research</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216</p>		-	0.000	0.125
<p>Title: Aerial Delivery and Autonomous Deployment of Unmanned Vehicles</p> <p>Description: Develop ability to deliver unmanned systems from existing airdrop systems</p> <p>FY 2024 Plans: FY24 Plans in project 640216</p> <p>FY 2025 Plans: Complete release mechanism for unmanned vehicle</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216</p>		-	0.000	0.564
<p>Title: Program Execution</p> <p>Description: Provide technical assistance and program management support to the USTRANSCOM RDT&E Program.</p> <p>FY 2024 Plans: FY24 plans in project 640216</p> <p>FY 2025 Plans: Program support to explore technology solutions to capability gaps identified through Joint Concept Development documents, the Joint capabilities Integration and Development System process, Joint</p>		-	0.000	1.085

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
Experimentation, etc, to increase the responsiveness, efficiency and effectiveness of the Joint Deployment and Distribution Enterprise.				
FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216				
Title: Analyzer Driven Data Integrity		-	0.000	0.237
Description: Increase data integrity				
FY 2024 Plans: FY24 plans in project 640216				
FY 2025 Plans: Integrate plan design				
FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216				
Title: Strategic Theater Orchestration and Resource Management		-	0.000	0.665
Description: Provide ability more effectively and efficiently manage theater lift assets				
FY 2024 Plans: FY24 plans in project 640216				
FY 2025 Plans: Develop Strategic-Theater Scenarios				
FY 2024 to FY 2025 Increase/Decrease Statement: FY24 in project 640216				
Title: JDDE Mission Assurance Coordinator		-	0.000	0.846
Description: Develop a JDDE-wide method for mission coordination				
FY 2024 Plans: FY24 plans in project 640216				
FY 2025 Plans:				

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
Continue iterations of conceive, build, and test solutions			
<i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> FY24 in project 640216			
<i>Title:</i> Cyber Mission Assurance Technologies <i>Description:</i> Near real-time understanding of the operational impact of cyber risks, threats, and disruptions.	-	0.000	1.710
<i>FY 2024 Plans:</i> FY24 plans in project 640216			
<i>FY 2025 Plans:</i> Continue to develop integrated analysis/decision processes involving complex ops/cyber data by selecting pre-approved actions and coordinating stakeholders in the fight-through of cyber risks/disruptions to executing missions and Cyber Critical Asset Lists			
<i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> FY24 in project 640216			
Accomplishments/Planned Programs Subtotals	0.000	0.000	27.762

D. Other Program Funding Summary (\$ in Millions)
N/A

Remarks

E. 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.