Joint Deployment Distribution Enterprise (JDDE)
Call for Government-proposed
Research, Development, Test and Evaluation (RDT&E) Projects, FY26-30

United States Transportation Command (USTRANSCOM) is soliciting government organizations for RDT&E projects to address applicable Joint Deployment and Distribution Enterprise (JDDE) Capability technology gaps. This solicitation is for projects starting in FY26.

This is a two-phase selection process (Phase I is a 4-page white paper and Phase II is a full, 15-page proposal) call.

Those submitting proposals are encouraged to speak with USTRANSCOM subject matter experts to discuss their proposal, details of the USTRANSCOM need, and other factors to improve the quality of the proposal and to better determine commitment to sponsorship and transition.

2024 Deadlines are as follows:

29 Mar 1600 (CST)	-- Submittal of electronic Phase I white papers. Late submissions will not be considered.
1 - 26 Apr	-- Phase I evaluation period.
30 Apr	-- Phase II notifications.
May/Jun	-- Phase II Offeror's can discuss proposals with SMEs/evaluators to gain clarification and to better focus proposals on targeted gaps. Contact TCJ5-SC RDT&E Team (see POC info at end of announcement) to initiate/facilitate discussions.
28 Jun 1600 (CST)	-- Submittal of electronic Phase II proposals. Late submissions **will not** be considered.
31 Oct 24	-- Notification of final selection (due to multi-month collaborative evaluation/vetting process)

Appendix 1 contains the highest-priority needs identified by USTRANSCOM, its Service components, and the JDDE community. Additional technology gaps can be found at https://www.ustranscom.mil/cmd/associated/rdte/, proposals addressing those technology challenges are a lower priority but will be considered if the proposed technology addresses a transformational leap in capability. Proposals that include collaborative funding support are highly valued especially when addressing Appendix 1 needs.

Projects should be described in terms of the appropriate Technology Readiness Level (TRL). USTRANSCOM can only fund developmental efforts whose TRL level is 4 through 7 (Budget Activity 3, Advanced Technologies Development, and Budget Activity 4, Advanced

Component Development and Prototypes). Proposals that seek to extend an existing capability or modernize it (such as preplanned product improvement (P3I)) fall in the acquisition/procurement area or are beyond TRL 7 are not candidates for USTRANSCOM RDT&E funding. TRL definitions/descriptions can be found in USTRANSCOMI 4300.06 at https://www.ustranscom.mil/cmd/associated/rdte/references/USTCI_4300-06.pdf .

Proposals most likely to be chosen by the government will demonstrate a significant number of project selection criteria listed at Appendix 2. Prior experience demonstrates that relatively short-duration projects (up to 3 years), concentrating on prototyping *and transitioning/integrating* a new "component" capability within existing JDDE systems, architectures and/or programs/systems of record, are likely to be the most competitive. Proposers may submit proposals for multi-year programs of research and development but should be aware longer-duration efforts face significant challenges finding a transition sponsor and funding.

If multi-year/multi-project efforts are proposed, proposers should identify a baseline project, (including, if appropriate, a start-up engineering feasibility study) with optional follow-on efforts to be selected by USTRANSCOM, based on assessment of the success of earlier segments, continued interest in proposed capability, and the availability of funding for development and a sponsor for transition.

Proposing organizations should plan to execute approved projects though their own contracting and technical/management oversight capabilities and facilities. USTRANSCOM will provide RDT&E funding via appropriate government funding vehicle. USTRANSCOM requires a detailed execution review via semi-annual programmatic briefings.

The proposer is responsible for designing and executing a transition strategy, which should include detailed planning with programs/systems of record to move the new technology out of the development environment into system program office work and/or into operational use.

If the submitting government agency is sponsoring a project to be developed with an industry or academic partner, those outside agencies should be apprised that USTRANSCOM contractor personnel (including but not limited to LMI Government Consulting, CGI Federal, and others) may act as advisors to the selection process. Contractors advising USTRANSCOM in this evaluation have already signed, or will be required to sign, non-disclosure agreements.

If the proposer wishes to submit a classified proposal, first contact below Points of Contact at phone/e-mail/address listed below.

Send correspondence to transcom.scott.tcj5j4.list.rdte@mail.mil.

Points of contact:

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3 Appendices (Attached)
1. Technology Needs/Focus Areas for FY26
2. USTRANSCOM RDT&E Project Selection Criteria
3. USTRANSCOM RDT&E 2-Phase Project Selection Process (contains format templates)

APPENDIX 1

Technology Needs/Focus Areas for FY26

USTRANSCOM RDT&E focuses on emerging technologies with joint deployment/distribution improvement potential. The challenges in this announcement are intended to provide general joint deployment/distribution areas of interest and should not be construed to represent areas which USTRANSCOM can or will apply funds to proposed solution.

HIGHEST PRIORITY NEEDS/FOCUS AREAS BY COMMAND PRIORITY:

READY NOW AND IN THE FUTURE:

Rapid Distribution Technologies: Concepts and technologies that improve the end-to-end flow of military unit equipment and cargo through ocean ports, aerial ports and intermodal inter-change points. This includes autonomous capabilities and motion compensation interface platforms for use with commercial cargo conveyances to enhance throughput.

DRIVE CYBER DOMAIN MISSION ASSURANCE:

Security of the Cloud: Conducting best practices and policies designed to protect data, applications, and infrastructure in cloud computing environments from cyber threats and data breaches are critical to the JDDE. Cloud security encompasses various aspects such as data encryption, access controls, threat detection, and compliance with data privacy regulations. With the rise of sophisticated cyber threats, cloud security is crucial for protecting sensitive data, maintaining compliance with industry regulations, and ensuring the integrity and availability of cloud-based systems. Looking for technologies/capabilities to improve security in the Cloud.

Cyber and Electronic Resilience: The JDDE must be able to defend its information, detect and mitigate cyber and electronic threats against mobility platforms, networks, and Command and Control systems. USTRANSCOM struggles with the ability to share information within our own systems and environments as well as limited capacity to mature threat intelligence capabilities and processes. This requires a platform independent capability to secure deployment/distribution information resident in or traversing low assurance info networks/environments. This includes anomaly detection and predictive analysis techniques/tools (e.g., artificial intelligence (AI), machine learning (ML) & cognitive computing (CC)) to dynamically assess future threats, attack vectors, and attacker intent and anticipate actions before they happen (i.e., the capability to defeat an attack before it happens, instead of having to react to it as it occurs). Capability should dynamically respond to threats and provide recommended response actions to operators. Capability must provide for trusted communications protected with Federal Information Processing Standard (FIPS) 140-3 compliant cryptography while also robustly withstanding or adapting to direct electronic attack.

Contested Cyber Global Logistics: Global contested cyber logistics is a comprehensive, holistic approach to meet threats aimed at cyber systems, installations, and supply chains. Resiliency resources are necessary to support multi-domain and distributed operations in contested environments. Interested in technologies, including AI/ML, and distributed ledger technology (DLT) using blockchain and directed acyclic graph (DAG) transactions into existing systems to reduce risk and secure logistic information from external and internal attacks.

Secure Collaboration with Commercial/Interagency/Coalition Partners: Information sharing among partners/interagency can help achieve increased productivity, improved policymaking, and integrated services which is often limited by technical, organizational, and other barriers. The JDDE has interest in exploring concepts which minimize risk to passenger, patient, cargo, and fuel movement data on commercial scheduled or chartered plane, ship, truck, bus, barge, and rail services leaving the Defense Information Systems Network (DISN) and shared with partners. Capability must allow for assured, secure and trusted communications. Solutions must require minimal management/infrastructure overhead, be able to integrate into existing DoD and commercial information systems, and leverage government-owned/operated capabilities to the maximum extent possible. Goal is to securely collaborate and share information with commercial partners while ensuring confidentiality, integrity, and availability of U.S. transportation data residing outside of the DISN.

Resilient Communications: The JDDE needs technical solutions that address resilient and secure communications and networks, information infrastructure protection, and engineered systems. The objectives of the research are to provide secure, resilient, and assured communications over both wired and wireless networks to include highly mobile networks.

Application Rationalization: Legacy systems/processes continue to introduce risk through technical debt accumulation and capability atrophy. USTRANSCOM requires assistance in identifying and assessing applications and application components to determine which should be kept, replaced, retired, or consolidated to become more efficient and effective. We are interested in technologies to deliver detailed, data-driven understanding of our applications with an end-state to be more agile and less costly to rapidly provide emerging mission capabilities, to address this challenge.

CREATE DECISION ADVANTAGE:

Supply Chain Sustainment Simulation Tools: Joint simulation tools are poorly equipped to integrate sustainment flow modeling at the strategic and operational levels (wholesale and Service-level retail). Little capability exists to do unconstrained "what-if" supply scenarios without manual effort.

Deployment/Distribution Modeling, Simulation and Optimization: Budget uncertainty and the evolving global strategic environment drive the need to modify D2 business processes, equipment and infrastructure. The JDDE is limited in its ability to visualize highly interdependent D2 systems, weigh alternative courses of action and/or measure the

effectiveness of the proposed changes. The JDDE requires modeling & decision support tools to transform systems, programs, initiatives, and measure contested environment/attrition effects on transportation/logistics movement to ensure operational efficiency.

All Domain Maneuver Warfare (ADMW) Planning and Execution: DoD's move to ADMW operations requires new and innovative equipment, concepts and processes to sustain dispersed, mobile and convergent Joint Forces at a time and place to bring maneuver power to bear on targets of opportunity. The planning community requires trained personnel, well defined and validated processes, standardized data, and the essential technologies, including AI/ML, to ensure the Department's ability to rapidly develop, assess, adapt, converge, and execute plans in a multi-domain operational environment.

Data: The JDDE remains committed in the pursuit and exploration of advancements in data science. Technologies like artificial intelligence, machine learning, and advanced analytics, continue to advance rapidly and have enormous potential to improve USTRANSCOM mission outcomes. Leadership recognizes that advanced decision-making capabilities are paramount in projecting and sustaining a decisive force at the speed of war. The ability to manage data as a strategic resource remains foundational to USTRANSCOM's transformation to a data driven command and underpins implementation of business reform initiatives such as the implementation of a Transportation Management System. As our data environment continues to evolve, USTRANSCOM remains engaged in research which drives visibility, accessibility, understanding, linking, trustworthiness, interoperability, and security (VAULTIS) across the JDDE. Research interest includes but is not limited to active metadata management, evolved data stewardship; data discovery, predictive/ prescriptive analytics; and deep learning algorithms.

Distributed Global Mobility C4: C4 is the heart of successful military endeavors, especially in austere and/or contested environments. For global mobility, C4 must be seamless regardless of theater of operation and/or customer being supported. This includes technologies that allow distributed C4 with mobile platforms (whether on land, sea, air, or space) as well as technologies, including AI/ML, that provide the capability to replicate large databases, in a synchronized fashion, across a globally distributed network. In addition, these enclaves must be capable of working "off-line," then seamlessly rejoining the global network following combat or contingency degradation. Additionally, a capability that can plan, allocate and integrate logistics resources effectively and quickly on a global scale in support of the operational needs of the combatant commanders.

NOTE: Description of Command Priorities and additional technology gaps can be found by accessing the USTRANSCOM RDT&E web page at https://www.ustranscom.mil/cmd/associated/rdte/, under the "references" tab, FY26 Operational and Technical Challenges. Proposals addressing those technology challenges are a lower priority but will be considered.

APPENDIX 2

USTRANSCOM Research, Development, Test, and Evaluation Program
Project Selection Criteria

Award decisions will be based on a competitive selection of full proposals from subject matter experts and/or scientific/technical reviews.

1. JDDE gaps, areas of interest, and focus areas that this proposal targets.
   a. Were high priority gaps targeted as listed in Appendix 1?
   b. What are the targeted JDDE gaps, areas of interest, focus areas?
   c. Does the project link to link to a Joint Concept for Contested Logistics Line of Effort or a Combatant Command Campaign Plan Intermediate Military Objective?
   d. How do specific technological capabilities enhance distribution, transportation, planning/execution, and decision support processes?

2. Applicability to Joint Deployment Distribution Enterprise.
   a. Transformational potential (versus "modernization").
   b. Joint capability crucial to DoD supply chain.
   c. Not associated with major weapon system or end item acquisition program.

3. Potential Return on Investment (ROI) and Affordability.
   a. Shows significant positive ROI in lifecycle of application.
   b. Demonstrates a compelling business case for use.

4. Technical Merit: Utilizes sound scientific/engineering principles, assessed by pertinent experts.

5. Technical Maturity.
   a. Project demonstrates Technology Readiness Level (TRL) 4-7 at startup.
   b. TRL advancement commensurate with funding level, not beyond TRL 7 at conclusion.

6. Programmatic.
   a. Project plan demonstrates well-defined, defendable, and properly interrelated cost, schedule, and performance objectives.
   b. Project is structured in achievable phases or spirals with clear deliverables.
   c. Project demonstrates well-defined exit criteria, performance goals, and well-defined deliverables (studies, hardware or software prototypes, experimentation results, etc.

7. Technology Transition Potential.

a. Project has committed transition/integration agency, defined by provision of project manager or owning agency and identifies committed funding for next steps or transition to further development work.
b. Project plan demonstrates adequate understanding of integration requirements if intended to transition to operational use or presents clear methodology for determining those requirements, during the course of research.

APPENDIX 3

USTRANSCOM RESEARCH, DEVELOPMENT, TEST & EVALUATION (RDT&E)
Two-Phase Project Selection Process

Formats and Content for Proposals

A2.1. The likelihood a submission's success will be increased by clearly demonstrating the capability to be researched/developed and covers an important need; that the proposer understands the Joint Deployment and Distribution Enterprise domain and its challenges; the technical, programmatic, integration, and sustainment challenges of the proposed capability can demonstrate a benefit and/or positive return on investment (ROI) for the effort; and has an experienced/skilled team of researchers who will be assigned to do the developmental work.

Note: This is not a source selection.

USTRANSCOM's RDT&E Program is not a source selection process. The RDT&E Program solicits only Government agencies for proposals. USTRANSCOM's RDT&E program does not accept vendor specified proposals, or proposals with vendor specific markings (i.e., Copyright XXX Inc., XXX Inc. Propriety, XXX Inc. Logo).   The submitting agency is responsible for adhering to all contracting regulations and assigning an individual to serve as the Project Manager.

A2.2. *Phase I* requires submittal of a "white paper." White papers are no more than four pages in length with an optional appendix and are intended to preclude unwarranted effort on the part of a proposer whose proposed work is not of interest to USTRANSCOM or the Joint Deployment and Distribution Enterprise (JDDE). The white paper should summarize the full proposal and demonstrate succinctly that the concept is worthy of additional consideration for funding by the government.

A2.3. *Phase II* requires submittal of a "proposal." This portion of the process is only for successful proposers selected from Phase I. Selected proposers will be requested to submit a definitive technical and cost proposal for USTRANSCOM to evaluate, no longer than fifteen pages. Selection is dependent on the submission of a sound technical and cost proposal and is subject to successful negotiations as well as the availability of funds.

Phase I - White Paper (4-page limit)

A2.4. The white paper must be formatted as stated below. Submittal shall be in Times New Roman font of at least 12 points printed in portrait format. Lines may be single-spaced, though double-spaced is preferred. Pages shall include a 1-inch margin at top, bottom, and both sides. A footer within the 1-inch bottom margin containing page number, submittal title, proposer's organization, and appropriate classification or proprietary notice shall be included and must be in least 8-point Times New Roman font. The cover page and optional two-page appendix are not included in the 4-page limitation.

A2.5. Section A: Cover Page (not included in 4-page limit). Include title of proposed project and acronym/short title, if appropriate; period of performance; estimated total cost and cost per year of performance; technical and contracting points of contact, phone, fax, e-mail, date, company or agency name, and address; and notice of intellectual property content, security level, and other necessary markings; plus, illustrations or logos as chosen by the proposer. This cover page itself should not contain proprietary or otherwise sensitive information.

A2.6. Section B: Project Description:

A2.6.1. Describe what the RDT&E project will deliver. Acronyms spelled out on the cover page do not have to be repeated, but all other acronyms should be spelled out at first use.

A2.6.2. Describe need being addressed/capability to be researched to demonstrate the proposer knows the domain and its challenges. Cite pertinent formal requirements documentation if it exists. Identify any past/current/ programmed development effort, not limited to USTRANSCOM funded efforts, with which the submitted project may have some level of complimentary or duplicative areas of research or deliverable. USTRANSCOM projects may be found at https://www.ustranscom.mil/cmd/associated/rdte/ under the Ongoing Projects and Capabilities tabs. If applicable/appropriate, describe the extent that cyber security will be addressed.

A2.6.3. Describe the maturity of the technology, including Technology Readiness Levels (TRLs) at project startup and intended TRL at conclusion of the described RDT&E effort to describe the scope of the research effort and its maturity at the end of the project.

A2.6.4. Describe the anticipated benefit/ROI for implementing the proposed capability. Although a quantitative ROI is not mandatory in Phase I, an objective ROI is more compelling than a subjective one. A quantified ROI should be calculated without excessive assumptions prior to the RDT&E effort. If selected for a Phase II submission, anticipated benefit/ROI will

need to be detailed as described in the Phase II format below. Provide documented analysis for ROI as required.

A2.6.5. List the science/engineering/supply chain or other principles which demonstrate the proposal has technical merit and is likely to be able to solve the problem being addressed.

A2.6.6. List the performance metrics by which the RDT&E effort will be measured. This demonstrates the proposer comprehends the factors which dictate success for the effort.

A2.6.7. Describe instances where the technical approach has been used in industry or other non-DOD organizations.

A2.6.8. List the systems, corporate services, and/or programs with which this capability may be integrated, along with corresponding interfaces. State if there is already commitment by the Program Management Office of the Programs/Systems of Record (P/SOR) to incorporate the capability, once fully developed. This demonstrates a transition destination has been considered.

A2.6.9. List the numbers and experience of the designated researchers or other individuals who will perform this work and the location(s) where work will be done. This demonstrates the likelihood and level of expertise that will be applied. List the projects completed previously by the assigned researchers, providing telephone and organizational points of contact for the user of the capability.

A2.6.10. List major deliverables of the project (mid-term or final reports, prototypes, analysis, etc.), a high-level schedule which includes these deliverables, and the funding proposed for each phase of the effort (including by each fiscal year of the project's span). This demonstrates the proposer's technical/programmatic planning capabilities and understanding of the scope of the effort required.

A2.7. Appendix (not included in 4-page limit). The proposer may include a 2-page appendix, not included in the body page count, consisting of a diagram, photograph, or other visual aid to further describe the proposed RDT&E project and its deliverables, understanding of the domain and the place the technology will have in it, or other illustrative facts. This appendix is meant to be a visual aid or place for tables or lists, and not additional room for the text of the proposal.

Phase II - Proposal (15-page limit)

A2.8. This document is only required from proposers who are notified of the government's selection of their Phase I White Papers.

A2.8.1. The proposal shall be formatted as stated below. Submittal shall be in Times New Roman font of at least 12 points printed in portrait format. Lines may be single-spaced, though double-spaced is preferred. Pages shall include a 1-inch margin at top, bottom, and both sides. A footer within the 1-inch bottom margin containing page number, submittal title, proposer's organization, and appropriate classification shall be included and must be in 8-point Times New Roman font. The cover page and optional appendix are not included in the 15-page limit.

A2.8.2. Page limits listed in parentheses for the following sections are recommendations, and may be reallocated by the proposer, as necessary, within the 15-page limit.

A2.8.3. Cover Page. Include title and short title, technical and financial point(s) of contact, phone number(s), email, date, company, or agency name, estimated total cost and cost per year of performance, and notice of intellectual property content, security level, and other necessary markings, plus illustrations or logos as chosen by the proposer. This cover page itself should not contain proprietary or otherwise sensitive information and is not included in the 15-page limit.

A2.8.4. General Project Summary (1 page):

A2.8.4.1. Define the critical USTRANSCOM/Joint Deployment and Distribution Enterprise (JDDE) capabilities which the project addresses. Describe the current system/interface, capability, or process deficiency the proposal addresses. Explain the operational gap or issue addressed and how the development effort contributes to the solution. List the specific deliverables of the RDT&E effort (for example, analysis, report, prototype, experimental results of demonstration, etc.).

A2.8.4.2. Identify the technologies to be explored/developed, the end user, and how the technology will enhance that user's capabilities. Consider including a short mission scenario, vignette, or Operational View (OV-1) illustration.

A2.8.4.3. List the IT and/or hardware/platform/vehicle systems/ corporate services/interfaces (potential P/SOR) with which the technology may be integrated.

A2.8.5. Requirements Traceability (0.5 page):

A2.8.5.1. Identify the formal requirements from sources to include Joint JDDE Operational/Technical Challenges, program directives, Joint Capabilities Integration and Development System products, or other formal source of requirements (e.g., Joint Warfighting Concept/Joint Concepts for Contested Logistics) for the effort at the Joint or Service level. For USTRANSCOM internal proposals, sources include the Command Strategy Part B and Functional Campaign Plan-Global Deployment & Distribution. Higher priority will be given to those projects that address a Technology Need/Focus Area identified in the annual USTRANSCOM RDT&E Call for Proposals. Proposals should address the applicable Joint Capability Area. Definitions can be found in CJCSI 5123.01I.

A2.8.5.2. Alternately, if no formal requirement can be identified (see A2.8.5.1. above), identify any capability shortfalls from the USTRANSCOM web page https://www.ustranscom.mil/cmd/associated/rdte/ not included in formal requirements documentation (previous criteria) that this project will address.

A2.8.5.3. If no formal source of requirements exists, clearly describe the capability gap and the vision for closing the capability gap. Cite any pertinent exercises, operational experience, and/or experimentation. Definitions of analysis can be found in CJCSI 5123.01I.

A2.8.6. Project Suitability (1.5 pages):

A2.8.6.1. Describe the anticipated results and the manner in which the work will contribute to enhancing joint defense distribution and/or transportation capabilities. Describe why the technology/capability sought is not purely a Service (Title 10) responsibility and, therefore, qualified for joint USTRANSCOM RDT&E funding.

A2.8.6.2. Demonstrate why the project is innovative/transformational and, therefore, worthy of joint RDT&E funding and not simply an upgrade or modernization of an existing capability. Show the TRL at project start and anticipated TRL at project conclusion.

A2.8.6.3. Describe any past/current/programmed development effort, not limited to USTRANSCOM funded efforts, with which the submitted project may have some level of complementary or duplicative areas of research or deliverable. USTRANSCOM projects may be found at https://www.ustranscom.mil/cmd/associated/rdte/ under the Ongoing Projects and Capabilities tabs.

A2.8.7. Benefit, Affordability, and Business Case (3 pages): (if applicable/appropriate, describe the extent that cyber security will be addressed)

A2.8.7.1. The proposer must document ROI using Enclosure I (to be included in the proposal's appendix, not counted against the 15-page limit), whether quantifiable or not. A quantitative ROI is mandatory, if computable, and is more compelling than a subjective one. Instructions for completing the template are located in Enclosure I of USTRANSCOMI 4300.06 (available at https://www.ustranscom.mil/cmd/associated/rdte/). ROI is calculated within the template as

savings/cost avoidance generated by the investment minus the cost of the investment, divided by the cost of the investment.

ROI = (Savings and/or Cost Avoidance – Investment) / Investment.

The template is intended to complement the proposal. Where appropriate, the proposal should refer the evaluator to the template for additional information and vice versa. Cost savings (e.g., replacing a manual operation performed by contractor personnel with a less expensive automated system) is a reduction to an approved program funding line that can be quantified, reallocated, and/or removed from the budget/Program Objective Memorandum and tracked. Whereas cost avoidance (e.g., overtime pay due to increased workload from inefficient processes or equipment) is a benefit from actions that reduce or eliminate the need for an increase in manpower or cost if present management practices continue. For projects of lower technological maturity or in the early stages of development, ROI/affordability can be based on broader assumptions, non-quantifiable benefits (also called qualitative benefits), and less-stringent criteria than would be expected for a go/no-go acquisition decision--as long as these assumptions are stated clearly. Non-quantifiable benefits (e.g., improve mission planning synchronization) cannot be quantifiably measured and are usually subjective in nature. Non-monetary quantifiable benefits can be measured quantifiably (e.g., reduction in military overtime man-hours). Characteristics such as product or service performance (miles/hour, orders/hour) or work environment (average noise level, mishaps/week) can sometimes be quantified in non-monetary terms. In such cases, non-monetary costs and benefits should be quantified to the greatest extent possible, and direct comparisons among these measures across alternatives should be made. Where affordability of the fielded capability is tentatively projected at the outset, the research plan should explicitly contain activities to refine these measures and refresh the estimates at project completion. A business case for use should be described.

A2.8.7.2. Sources and Assumptions. Document sources and assumptions associated with tangible/intangible costs/benefits for the project which affect (or make possible) the calculation of ROI and affordability. The sources and derivation of the costs/benefits must be documented and should include all interim calculations as appropriate. Source documentation (calculations, technical reports, similar RDT&E efforts, etc.) should be attached or referenced in the ROI template in the designated column.

A2.8.7.3. Analysis of Alternatives. Describe why this RDT&E effort is preferable to non-RDT&E approaches; list other courses of action (including non-materiel solutions) considered and why they are not recommended. Other courses of action must address potential solutions based on doctrine, organization, training, materiel, leadership, personnel, facilities, & policy.

A2.8.7.4. Business Case for Implementation/ROI. If possible, quantitatively estimate the cost to implement the proposed capability (life cycle cost including RDT&E, development/test, procurement, and sustainment) and life cycle ROI. Describe any existing systems/interfaces which may be retired, or personnel support, which may be reduced (and thus operating costs saved) by use of the technology. Also, describe estimating methods or data sources which were used, and how they contributed to the credibility of the cost estimate.

A2.8.7.5. Applicability to Industry Practices and Partnerships. Describe, if possible, instances where the proposed technical approach has been used by industry (e.g., best, or innovative practices) and how the capability, if developed and fielded in the JDDE, may assist DOD in working more economically or seamlessly with its commercial and other supply chain partners.

A2.8.8. Technical Merit and Maturity (4 pages):

A2.8.8.1. Describe the technologies to be developed, their risks for fielding, and methods of better understanding or reducing those risks during RDT&E.

A2.8.8.2. State the assessment of experts regarding technical merit of the approach. Is the approach based on sound scientific/engineering principles likely to succeed in achieving stated capabilities? What are the qualifications of the experts who make that judgment?

A2.8.9. Programmatics (4 pages):

A2.8.9.1. Cost, schedule, and performance are interrelated. This section is meant to show the schedule of activities for the RDT&E effort with accompanying funding requirements for each segment of the project and its deliverables.

A2.8.9.2. Provide a detailed schedule, with start and end dates for major activities, appropriate decision point milestones, and completion dates for deliverables such as studies, prototypes, and other outputs of the research, for the entire project. Show links to other development efforts and to P/SOR to illustrate transition paths. If a project has already started, include any activities already completed. Include activities that support transition to further development, demonstration, or acquisition, as appropriate.

A2.8.9.3. Describe prior expended and requested funding for the RDT&E effort in then-year thousands. Include an estimate/rough order of magnitude for follow-on development, production, transition (for Transportation Working Capital Fund POR IT efforts) and sustainment costs. It is important in all life cycle phases (see Figure A2.1) to plan for Information Assurance security, vulnerability management, patching, and hardware/software life cycle support management. Interoperability and negative security impact are also key considerations factors impacting every project's funding life cycle. Revised transition costs shall be updated within the Technology Transition Strategy one year after project execution commences. Figure A2.1 is the required format.

Figure A2.1. Recommended Format – Lifecycle Funding Estimates.

$K, then-year	FYXX	FYXX	FYXX	FYXX	FYXX	FYXX	FYXX
Prior funding source (name)							
Requested USTRANSCOM R&D							
Estimated additional R&D							
Estimated development/test							
Estimated production/fielding							
Estimated transition*							
Estimated sustainment*							

* Required for all Transportation Working Capital Fund (TWCF) Program of Record IT efforts

A2.8.9.4. List the partner organizations which will collaborate throughout the project's execution.

A2.8.9.5. List similar prior RDT&E work performed for DOD, USTRANSCOM, or other government agencies.

A2.8.9.6. Describe performance metrics (see Figure A2.2) to be used during conduct of the research and development effort. (The RDT&E program is also required to report these metrics on each project in annual DOD-required budget documents). These metrics should be quantitative if at all possible or qualitative only by exception and should be measurable at milestones during the course of the research with enough confidence to determine suitability for further research and development work and/or transition to additional development or even to the user. Describe the performance thresholds and/or exit criteria for each phase and the end of the project, and TRLs at the beginning and conclusion of the RDT&E effort. A recommended format is:

Figure A2.2 Recommended Format – Performance Metrics.

Metric Name	Description (and units)	Purpose of Metric (Decision supported)	Phase in Program Used	Minimum Acceptable (Threshold)	Desired Value(Objective)

A2.8.10. Technology Transition Strategy (TTS) (1 page): Ensure Transition Strategy complies with Enclosure H of USTRANSCOMI 4300.06 (https://www.ustranscom.mil/cmd/associated/rdte/references/USTCI_4300-06.pdf).

A2.8.11. Appendix (5 pages). The proposer may include a 5-page diagram, appendix, photograph, or other visual aid, not included in the body page count, to further demonstrate the proposed RDT&E project and its deliverables, demonstrate understanding of the domain and the place the technology will have in it, or other illustrative facts. The USTRANSCOM ROI template Enclosure I in USTRANSCOMI 4300.06 (https://www.ustranscom.mil/cmd/associated/rdte/?page=references.cfm) should be included in this appendix as well as the Project Quad Chart, which will be provided by TCJ5/J4, upon Phase II selection.