





RDT&E Team TCJ5-SC, USTRANSCOM





OVERVIEW/OBJECTIVES

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The intent of this training is to provide instruction on:

- The overview of the USTRANSCOM RDT&E Program
- Defining and Contrasting the Activities that Support RDT&E
- A Synopsis of the USTRANSCOM RDT&E Command Process
- Project Coordinator duties of the USTRANSCOM RDT&E Program,
- Acquisition Process for the USTRANSCOM RDT&E Program
- Execution/Reporting for the RDT&E Program
- Transition Responsibilities, Fiscal Execution Challenges



VISION AND MISSION

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• Vision: The transportation and enabling capability provider of choice

 Mission: USTRANSCOM provides full-spectrum global mobility solutions and related enabling capabilities for supported customers' requirements in peace and war



RDT&E ACTIVITIES

- Earlier efforts to innovate in USTRANSCOM were severely constrained by Transportation Working Capital Fund (TWCF) availability and limitations
- Reliance on Service RDT&E for joint-level capabilities was unsuccessful
 - No sponsorship for Joint capability development or sustainment
- No investigation of new capabilities at the seams of the transportation and distribution supply chains
- No synchronization for Service/Agency capabilities at the exchange points in the supply chain

RDT&E BENEFITS

- Improved management across the "seams" of USTRANSCOM's distribution process fill the gaps
- Improved customer support via improved velocity, enhanced visibility, and cost avoidance
 - Improved responsiveness to dynamic, changing CCMD needs
 - Improved support in Contingency Planning
 - Better utilization of transportation assets
 - More confidence in sea vs. air decisions
 - Increased throughput in distribution processes
 - Other operational efficiencies
- Improved Command and Control interoperability of DTS/DPO assets
 - Fewer stand-alone, Service-only systems
- Savings reflected in 'cost avoidances'



AUTHORITY AND FUNDING

- FY04 OUSD(C) authorized USTRANSCOM TWCF investments in transformational technologies
 - Existing Financial Management Regulations proved too restrictive
 - Designation as DPO provided unique opportunity to modify approach
- PBD 703 approved limited funding stream within DLA's RDT&E budget with PBD 705 approving the established out-year funding stream. The line transferred to AF in FY17.

Program Element (PE) (\$M) – Air Force	FY22	FY23	FY24	FY25
Deployment & Distribution (PE0604776F)	24.603	29.016	31.953	32.061

- Capability development area details outlined in USTRANSCOM Research, Development, Test and Evaluation (RDT&E) Plan: Revised annually; Provides strategic roadmap for the exploration and exploitation of applied research and technology to enhance transportation and distribution processes
- Leveraging emerging technologies to enhance global distribution capabilities



LEVELS OF RDT&E ACTIVITY

- Basic Research (Budget Activity 1/BA1): Systematic study directed toward a greater understanding of the fundamental aspects of phenomena and/or observable facts without specific applications toward processes or products
- Applied Research (BA2): Systematic study to gain knowledge necessary to determine the means by which a recognized and specific need may be met
- Advanced Technology Development (BA3): Includes all efforts that have moved into the development and integration of hardware for field experiments and tests
- Demonstration and Validation (BA4): Includes all efforts to evaluate integrated technologies in a realistic operating environment to assess the performance or cost reduction potential of the advanced technology (USTRANSCOM Funding Level)
- Engineering and Manufacturing Development (BA5): Includes projects in engineering and manufacturing development for Service use which have not received approval for full rate production



LEVELS OF RDT&E ACTIVITY-CONT

- RDT&E Management Support (BA6): Includes R&D efforts directed toward support of
 installation operations required for general R&D use. This includes test ranges; military
 construction; maintenance support of laboratories; operations and maintenance of test aircraft
 and ships; and studies and analysis in support of a R&D program
- Operational System Development (BA7): Includes projects in support of development acquisition programs or upgrades still in engineering and manufacturing development. These projects have received Defense Acquisition Board (DAB) or other approval for production or for which production funds have been included in the DoD budget submission for the budget or subsequent fiscal year
- BA-8 exists within the RDT&E account and is intended to evaluate the effectiveness of a single appropriation for 'Software and Digital Technology' that encompasses development, implementation, fielding and sustainment.



TECHNOLOGY READINESS LEVEL (TRL) TARGETS

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- TRL 1: Basic principles observed and reported
- TRL 2: Technology concept/application formulated
- TRL 3: Analytical or experimental proof of concept
- TRL 4: Component(s) validated in normal lab environment
- TRL 5: Component(s) validated in realistic lab environment
- TRL 6: System or subsystem prototype in relevant environment
- TRL 7: System prototype demonstration in operational environment
- TRL 8: Actual system qualified through developmental T&E
- TRL 9: Actual system proven through operational T&E

USTC RDT&E Program Focus



ACTIVITIES USED TO CONDUCT RDT&E

- USTRANSCOM funded RDT&E projects address JDDE Gaps with defined deliverables, close cost estimates, and schedule goals to serve a user
- CRADAs: Industry provides resources; government provides the development environment; Managed by Command's Office of Research and Technology Applications (ORTA)
- JCTDs are demonstrations of mature technologies in a joint operational environment
 - Deputy Assistant Secretary of Defense Enabling Capabilities & Prototyping (DASD/EC&P) program
 - USTRANSCOM collaboratively funds JDDE-related JCTDs
- Other programs not relying on USTRANSCOM RDT&E funds include:
 - Coalition Warfare Program: OSD program that relies on coalition partner contributions to mutually pursue technology development
 - Joint Test & Evaluation: OSD program which funds the development of joint tactics, techniques & procedures and/or Concept of Operations



RDT&E IS AN APPROPRIATION

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- Funded by the RDT&E Congressional appropriation
 - Air Force example: "3600 money"
- Distinct from Operations and Maintenance (O&M), Procurement, and Military Construction appropriations
 - Different purposes, lifespan, and management
- Other principal users of DoD RDT&E are Services' "materiel commands", laboratories, system program offices (SPOs), the Defense Advanced Research Projects Agency (DARPA), and the National Science Foundation (NSF)
- National Laboratories including Oak Ridge, Sandia, Lawrence Livermore, and Los Alamos are major users of RDT&E outside of DoD
- TWCF are revolving funds (used in some instances to transition Command IT-related RDT&E technologies)

11



"COLOR" OF MONEY EXPLANATION

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- TWCF Capital
 - Source is fee charged to customers of the Defense Transportation System (DTS)
 - Capital is used for materiel purchases over \$250K (capital investments)
- TWCF Operating
 - Source is fee charged to customers of the DTS
 - Operating is used for funding of management, oversight, consumable materials, or capital purchases under \$250K
- RDT&E
 - Source is Congressional appropriation
 - Used for investigation, scale-up, and integration of new capabilities
- Operations and Maintenance (O&M)
 - Source is Congressional appropriation
 - Funding of management, oversight, consumable materials, or capital purchases, at the operator level, to conduct daily operations

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RDT&E GOVERNANCE

- USTRANSCOM Instruction 4300.06
 - Policy and procedures to develop, implement and manage the program
 - RDT&E submission format
 - Guidance to Project Coordinators overseeing development activities

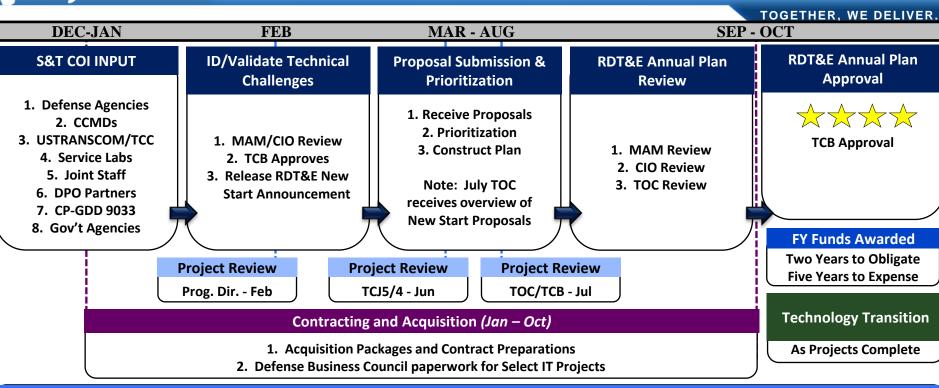


PROGRAM DIRECTOR FUNCTIONS

- Ensure the daily program management and execution of the Commands RDT&E program
- Develop/maintain USTCI 4300.06 Research, Development, Test and Evaluation (RDT&E)
 Program
- Solicit technology proposals to fill or address identified capability gaps
- Develop an annual technology plan
- Aid the staff in linking identified shortfalls to potential technology solutions in DoD Laboratories, Academic, and Industry Science & Technology (S&T) communities
- Ensure approved S&T projects are incorporated into the Command's S&T plan
- Monitor execution of funded technology projects



RDT&E PROCESS



Project Execution and Monitoring (Continuous)

- 1. OSD obligation/expensing rates tracked monthly
- 2. JCTD projects reviewed IAW ASD(R&E) established process



RDT&E PROCESS EXPLANATION

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- TCJ5/J4 is the focal point for coordinating Command RDT&E activities
- RDT&E initiatives are received from Government Agencies, Service Labs and Academia through our data call that feeds the RDT&E process as well as from USTRANSCOM and USTRANSCOM Component Command (TCC) Staffs
- Support for project management and transition vetted with USTRANSCOM/TCC staff/processes (e.g. Mission Area Manager, Corporate Governance Process, etc.)
- Project needs come from the Joint Deployment and Distribution Enterprise Annual RDT&E
 Operational and Technical Challenge Update which is influenced by customer needs and
 lessons learned
- Collaborating the previously mentioned sources, the RDT&E initiatives are prioritized. These
 initiatives are then vetted through the Command staffing process which ranges from the
 RDT&E Management Team to the TRANSCOM Corporate Board for final approval to
 formulate the RDT&E Investment Plan

16



PROJECT SOLICITATION/APPROVAL PROCESS

- J5/J4 Program Director issues call for white papers (~Mar):
 - Across the JDDE and S&T communities
 - White Papers submitted using format in USTCI 4300.06 (Enclosure C)
 - Should address valid Operational and Technical Challenge (Annual Call for Proposals)
- Proposed projects are vetted prior to Commander, USTRANSCOM approval:
 - RDT&E Team and selected Staff Subject Matter Experts review proposals
 - RDT&E Management Team reviews selected initiatives
 - RDT&E Investment Plan is presented to the Mission Area Manager
 - Plan is presented to the Chief Information Officer (CIO) Council
 - Plan is vetted via Distribution Process Owner Governance Structure
 - Final step is review by the TRANSCOM Oversight Council (TOC) followed by approval by the TRANSCOM Corporate Board (Oct)
- Jan Sep, contracting packages are prepared/project management structure is established



PROJECT COORDINATOR RESPONSIBILITIES

- Oversee assigned funded initiative(s)
- Provide accurate and timely completion of all program data call requirements/provides project updates to the USTC Program Monitor
- Monitor, coordinate, track and report obligations and expenditures to J8 and the Program Monitor on a monthly basis
- Project reviews: RDTE Program Director Feb; TCJ5/J4-D Jun
- Project Coordinator's must ensure the financial actions associated with their projects are expeditiously processed



PROJECT COORDINATOR RESPONSIBILITIES-CONT

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- For IT-related projects
 - Contact the TCJ39-A MAM Support Team for PC Guide, MAM templates, and support
 - Coordinate with appropriate Sub-MAM when IT program is destined for USTRANSCOM POR
 - Coordinate project development with appropriate POR Program & Functional Manager(s)
 - Manage the smooth transition of successfully completed technology efforts into the DoD Program of Record (POR)
 - When applicable must submit to the Defense Business System Management Committee

18



PROJECT EXECUTION/MONITORING

- Obligation/expense rates tracked monthly; compared to Defense Finance & Accounting Service records and Office of Secretary of Defense goals
- Initiatives are briefed, by Project Coordinators, annually to the RDT&E Program Director in February
- Annually, in June, TCJ5/J4-D is briefed on the initiatives by the Project Coordinators
- Semi-annually to TRANSCOM Corporate Board (TCB) following aforementioned Feb/Jun Project Reviews
- TOC / TCB briefed on individual projects by RDT&E Program Director and/or PC's as requested/situation dictates



WHAT USTRANSCOM RDT&E PCs DO

- Know your program Rationale, uniqueness, goals, deliverables, and integration needs
- Facilitate technical work by scientists and engineers
 - Provide access to DPO/DTS environment/expertise
 - Plan for team events/assist with problems
 - Lead the drive toward deliverables
- Report on progress (cost/schedule/performance)
 - Notify RDT&E Project Monitor of issues early
 - Periodic updates to designated RDT&E Team member/TCJ8
 - Annual reviews by TCJ5/J4-D and Program Director
- Aid technology transition and final reporting reviews
- Protect classified and proprietary information



TREAT THE DEVELOPER AS A TEAM MEMBER

- The developer needs an open, information and communication-rich environment to succeed
- Respect proprietary information and make every effort to provide information to advance the development work
- Ensure you understand the developer's needs
- Establish an environment of open exchange between all team members



TRACKING PERFORMANCE

- The project proposal and deliverables should describe outcomes/goals
- Frequent, close collaboration between the USTRANSCOM PC and the technology developer keeps awareness of performance goals uppermost
- Minor schedule slippages and cost overruns, while not desirable, can be tolerated if performance goals are being met
- Obtain a copy of the contract that work will be accomplished against for projects accomplished by organizations other than Service labs or via a USTRANSCOM contract
- RDT&E is inherently risky; performance goals may not be achievable (especially for immature technologies)
 - If useful knowledge is gained, the RDT&E effort can still be viewed as successful



THE FINAL TACTICAL (TECHNOLOGY) MILE

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- Technology transition is the transfer of knowledge gained in RDT&E to the next stage of development (and ultimately to a final product): Takes the form of formal scientific reports, plans and specifications, prototypes, and final "operational" items
- It is too late to begin transition planning at the end of development
- Many technology development efforts (JCTDs) are meant primarily to assist with acceptance and integration of new capabilities—but it's still difficult
- Requires planning from project inception The system/program of record must plan and resource integration of the new capability, which includes training and sustainment
- Any new capability requires changes to incorporate it Planning, funding, physical configuration, training, and cultural changes

Implication for PCs: Build a home for your technology as you develop it!

23



PC's SURVIVAL CHECKLIST

- Structure your program for success
 - Well-understood, achievable goals
 - Technical, cost and schedule should support one another
- Look ahead to anticipate problems
 - Do you have sufficient funds, or too much to spend?
 - Can the schedule be met, or should work be rearranged?
 - Work on integration and transition from the outset

- Utilize experts from across disciplines and organizations
 - Use the USTRANSCOM RDT&E Team to assist
 - Nurture a synchronized development team
- Provide your reports promptly
 - Funds execution is a priority
 - Spend your money smartly--and early
- Protect classified and proprietary information



THE PC's DELIVERABLES

- Acquisition Packages (once a year)
 - Due prior to each FY funds receipt
 - "Local" paperwork necessary to execute funds IAW USTRANSCOM Instruction 7500.05
- Quad chart/diagram or photo (at project start—update if changes)
 - Due at project start; review/update monthly
 - Summarizes cost/schedule/performance progress
- Briefing to RDT&E Program Director February each year
- Briefing to TCJ5/J4-D June each year (information to be used by RDT&E Program Director during annual July update to TRANSCOM Oversight Council



THE PC's DELIVERABLES

- Obligation/Expenditure status
 - Due monthly to designated TCJ5-SC RDT&E Team member
 - TCJ8 provides monthly report to SAF/FM ~ 10th of each month
- Ensure the principles and operational parameters of the DoD Scientific and Technical Information Program (STIP) are adhered to by verifying that external projects document all results, regardless of outcome, per DODI 3200.12 & DODM 3200.14. Internal projects shall submit final results to the RDT&E Program Director for documentation.



TRACKING SCHEDULE

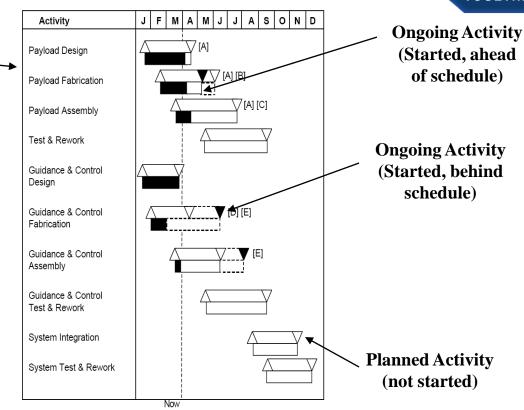
- Schedule shows functional breakout of activities needed to accomplish project goals
 - PC needs to understand how the activities interrelate and contribute to the whole
 - Each activity should be analyzed for resource and time needs and "exit strategy"
- Schedule must show
 - Major phases of the technical effort, Deliverables from each phase, Achievable completion dates (at month level), TRL entry level and exit goal, Project review activities, Technology transition activities, Final report or other output goal
- RDT&E Team (TCJ5-SC) should be notified of projected schedule problems beyond the control of the PC as early as possible
 - All projects have problems non-notification only makes them worse/impacts our ability to help address issues impacting performance. Early on, remediation/re-scoping is more efficient



SCHEDULE (EXAMPLE)

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Major tasks or deliverable items





REPORTING ON OBLIGATIONS AND EXPENDITURES

- Obligation and expenditure goals are the PC's fiscal flight path
- Better to exceed goals avoid pull-backs, especially at year end
- At least meet goals by mid-fiscal year
- First year: 90% Obligated/55% Expensed
- Second year: 100% Obligated/90% Expensed
- Though legally "2-year money", best strategy is to treat as 1-year money and obligate 100% in first year
- DoD has imposed more stringent monthly reporting requirements; imperative to track funds very closely

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PROJECT NAME

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PROBLEM/ISSUE: **Submitted by: USA CCDC Soldier Center**

• Resupplying troops in contact in an urban, high-threat area can be difficult, the likelihood of troops getting cut off from supply lines is high

• The hand emplacement of sensors, weapons caches and unmanned ground vehicles in an urban environment is a high risk operation

• Directly reaching large, isolated populations for delivery of humanitarian aid and/or informational material (i.e. leaflets, radios) can be difficult to do in a timely, safe and effective manner



RATIONALE: JCTD will incorporate many technologies at lower TRLs and work to rapidly develop them into aerial delivery systems capable which will then be assessed for operational utility within the dense, urban environment **PROGRAM OF RECORD:** USMC – .5K Modular AGU, PM SOF Forces Survival, Support & Equipment Systems – 4K JPADS

VALUE ADDED/ROI:

- Permits the development and evaluation of a more technologies to meet a wider variety of scenarios encountered by the warfighter
- These investments permit the additional leveraging of Army S&T and OSD investments in a cohesive and collaborative manner

2022 DELIVERABLES/MILESTONES:

Month	Deliverable/Milestone
Jun 2022	Operational Demonstration 1 Rehearsal
Aug 2022	Operational Demonstration 1
Nov 2022	Interim Operational Utility Assessment

COLLABORATION PARTNERS: Army, OSD, SOCOM, CENTCOM, USAF, USMC

(\$M)	FY21	FY22	FY23	FY24	FY25	Total
Other/Prior Funding Source	0	3.8	4.1	3.5	0	11.4
USTRANSCOM R&D	0	1.5	1.95	0	0	2.40
Estimated Additional R&D	0	0	0	1.0	0	1.0
Estimated Development/Test	0	0	0	0	0	TBD
Estimated Production/Fielding	0	0	0	0	0	TBD
Estimated Sustainment	0	0	0	0	0	TBD

FY21	Funds (\$K)	% Obl	% Exp	% Exp Sep
PM	1950	100	3	90
DFAS	1950	100	0	
FY22	Funds (\$K)	% Obl	% Exp	% Exp Sep
PM	1500	100	17	55



TRANSITION RESPONSIBILITIES

- It's the PC's responsibility to identify the transition path (i.e., Program of Record (POR), GSA catalogue item, etc.) at project inception
- The PC must identify how their program will fit into the POM cycle and ensure they both mesh well
- The PC has to confirm that their projects transition and sustainment is budgeted for across the Fiscal Year Development Plan (FYDP)
- Even if a POR is identified from the outset, the PC must shepherd the POR through the RDT&E process and cultivate the relationship

- Addresses important military need with Mature Technology & Innovative Concepts
- Provides a technical solution with tailored, demonstrated ops concepts/TTPs
- Evaluates solution in field demonstrations by warfighters
- Joint, often multi-service, often combined/coalition
 - Developer Military Service/Agency: Technical Manager (TM)
 - Sponsoring CCMD: Operational Manager (OM)
 - Lead Military Service/Agency: Transition Manager (XM)
- RAPID: 1 to 3 years to Final Demonstration/Prototype
 - Up to 2 Years of support for Residuals
 - Multiple transition possibilities (GSA Schedule, Program of Record, etc.)
- Multiple funding sources: DASD(EC&P) typically provides up to 50% funding



TECHNOLOGY TRANSFER AND THE CRADA

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- USTRANSCOM acts as a federal laboratory for Technology Transfer authority
- CRADAs are a tool for USTRANSCOM to access external expertise for concept exploration— BEFORE any formal acquisition decision is made
- Flexible and fast; start collaborative work in days or weeks, not years
- Not a procurement contract or grant (no funding to external party); thus exempt from the Federal Acquisition Regulation and Defense Federal Acquisition Regulation Supplement
- USTRANSCOM can obtain rights in inventions, patents, and intellectual property
- Trade secret and commercial/financial information are protected from disclosure
- The USTRANSCOM Office of Research and Technology Applications facilitates startup and operation of CRADAs, including finding industrial/academic partners, assisting in experiment design and intellectual property management, and providing technical advice

33



CRADAS IN PRACTICE

- A legally-binding agreement signed by the Lab Director (TCDC) and external parties
- Partners can be any non-federal parties, with any number of federal agencies
 - Contractors and industrial organizations
 - Academia or individuals, non-profits
 - Units of state or local government
 - Public and private foundations



CRADAS IN PRACTICE-CONT

- How it works:
 - USTRANSCOM can provide any resource to a CRADA--except funding
 - Collaborators (outside parties) can provide any resources and may also provide funding or fees (to cover use of government facilities)
 - Research topics are negotiated and may be modified; the work is collaborative
 - Non-federal parties obtain access to our experts, data, facilities, and challenges
 - USTRANSCOM obtains access to experts and new technologies to better understand the value of potential new capabilities
 - Leverage thousands of engineering hours to explore Concept of Operations, risks, Return on Investment, and Tactics, Techniques and Procedures
- USTRANSCOM examples: hybrid airships; satellite RFID; wind farms vs. radars;



GOVERNMENT PURPOSE USE RIGHTS

- Organizations receiving USTRANSCOM RDT&E funding should apply appropriate internal controls and contractual actions to impose and preserve Government Purpose Use Rights (GPUR) for new intellectual property (inventions, copyrights and patents) developed in-house and through contracted work
- Government organizations receiving USTRANSCOM RDT&E funds for development work
 via contracts with non-federal parties will verify appropriate FAR and/or DFAR clauses,
 CLINs or CDRLs, and other pertinent contractual language and tables are included in
 contracts to appropriately protect government use rights in technical data, computer software
 and computer software documentation



GOVERNMENT PURPOSE USE RIGHTS-CONT

- Minimum language for contracts or subcontracts using USTRANSCOM RDT&E funds is as follows:
 - "The Government obtains under this contract "unlimited rights" to all technical data and non-commercial computer software, software source code, computer software documentation, enhancement, technical data, and similar non-commercial data developed exclusively at Government expense and delivered to the Government under this contract. "Unlimited rights" means rights to use, modify, reproduce, release, perform, display or disclose in whole or in part, in any manner and for any purpose whatsoever, and to have the ability to authorize others to do so. See DFARS 252.227-7013 and DFARS 252.227-7014 applicable to this contract."



THE ACQUISITION PACKAGE

- Two Types
 - External (Prepared by RDT&E Team)
 - Internal (Prepared by PC)
- Documents include
 - Staff Summary Sheet (SSS)
 - Performance Work Statement (PWS)/Project Proposal
 - Funding Documents: Military Interdepartmental Purchase Request (MIPR) (ext.), or AF Form 9 (int.)
 - Independent Government Cost Estimate (IGCE)



DOCUMENT EXPLANATIONS

- Staff Summary Sheet (SSS) Coversheet that consists of the Purpose, Background, and Recommendation of the Program
- Performance Work Statement (PWS) Provides additional information on performance based service contracts
- Funding Documents:
 - Military Interdepartmental Purchase Request (MIPR) External financial document
 - AF Form 9 Internal financial document
- Independent Government Cost Estimate (IGCE) A breakdown of the contract costs by Task, Labor Hours, and Hourly Rate that equate ultimately to contractor years



SUBMISSION TIMELINE

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- New contract/re-compete for 1 October start: NLT 1 April, Final approved Requirements Package IAW USTRANSCOMI 63-7
- Exercise of Option Periods with 1 October start: NLT 1 May, Final approved Requirements Package IAW USTRANSCOMI 63-7
- RDT&E Programs, multi-year
 - RDT&E funds are two year funds (to obligate)
 - Requirements Package is required for each year
 - Must comply with the yearly obligation and expense rates

With 2 yrs to obligate RDT&E funds and potential for Continuing Resolution (allows operation at last year's funding levels—no new projects), consider annual contract to commence ~Dec each year to minimize work stoppage potential – CAUTION: Requires an accelerated effort to meet OSD Comptroller 45% obligation/28% expense by 31 Mar.

44



DEOBLIGATION OF EXCESS/UNEXPENSED FUNDS

- Contract specialist actions:
 - COR submits notice that all deliverables have been received/contract actions complete
 - The contractor submits the final invoice along with notice that there are no outstanding invoices
 - Via DFAS validate funds remaining on each line item of the contract
- Additional information:
 - Contracts with Labor Hours are more complex than Firm Fixed Price contracts: the contractor has to submit, and DCAA must audit, a final invoice. The DCAA audit can take quite a while.
 - Firm Fixed Price contracts are less complex and time consuming to close and de-obligate. After all
 actions are complete and the contractor certifies submission of the final invoice, the contract specialist
 can close the contract and deobligate the funds.
- If the choice is between awarding a contract or action to avoid an interruption in service vs. contract close-out, service takes priority over closeout.



PROVEN PRACTICES

- Early acquisition planning is key to successful contract execution
 - Contact TCAQ as soon as a contract is being considered to determine approx time required from approved Requirements Package to contract award
 - Once you have a need, contact TCAQ ASAP to determine if we can buy. A TCAQ Buying Division rep will be assigned to help walk you through the process
- Get TCAQ involved early in the process
 - Determine the proper contract agency
 - Determine the correct acquisition strategy
 - Review the required draft documents while package is routed for approval IAW USTRANSCOMI 7500.05

BASIC RULES

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Congressional appropriation of funds to a Federal agency imposes limitations on their use

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- These restrictions give appropriated funds their "color"
- Color of money is distinguished by three elements of legal availability, all three must be observed for the obligation or expenditure to be legal
 - Purpose
 - Time
 - Amount



PURPOSE

- Public funds must be used only for the specific purpose that Congress intended
- Title 31, U.S.C., section 1301, states: "Appropriations shall be applied only to the objects for which the appropriations were made except as otherwise provided by law"
- Example the Air Force uses its aircraft appropriation to buy tanks for the Army This violates the purpose rule



TIME

- All funds must be obligated within the period of availability (e.g., 1 year for O&M and TWCF, 2 years for RDT&E and 5 years for construction)
- Appropriated funds can only be obligated for bona fide (i.e., legitimate) needs of the period of availability for which the appropriation was made
- When traveling, it is best practice to pay for travel using current year appropriated funds; however, legally one can use FY18 RDT&E funds to pay for FY19 travel since we have two years to obligate RDT&E funds (i.e., this would not be a bona fide need violation)



AMOUNT

- There are restrictions and limits on the amount available for expenditure
- The amount appropriated by Congress for any specific purpose and period may not be exceeded
- This rule is straightforward: to obligate or spend more money than Congress allowed for a specific project/program is unlawful



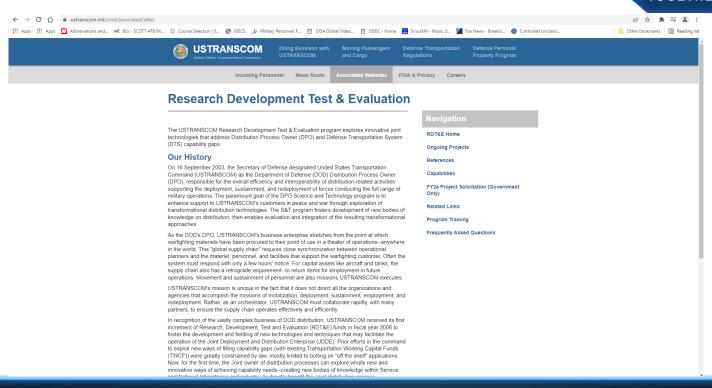
ANTI-DEFICIENCY ACT

- The Anti-Deficiency Act serves as the primary foundation for the Governments administrative control of funds. The law prohibits:
 - Obligating funds in any appropriation in excess of the amount available in that appropriation
 - Involving the Government in any contract or other obligation for the payment of money in advance of the appropriation made for such purpose, unless otherwise authorized by law
 - Accepting voluntary services for the United States, or employing personal services in excess of that authorized by law, except in emergencies involving the safety of human life or the protection of property
 - Making obligations or expenditures in excess of an apportionment or reapportionment in excess of the amount permitted by agency regulations



USTRANSCOM RDT&E PUBLIC WEBSITE

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Access additional information and website at https://www.ustranscom.mil/cmd/associated/rdte/



AVAILABLE TOOLS

- References and Expertise:
- Website: http://www.transcom.mil/rdte/
- RDT&E Plan USTC 60-2
- USTCI 4300.06
- USTRANSCOM R&D Team (618-220-4337)
- TCJ8 Budget Resource Advisor (618-220-4743)
- Acquisition (TCAQ) (618-220-7021)
- Judge Advocate (TCJA) (618-220-3982)



SUMMARY

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You should now have a fundamental understanding of the process for submitting a proposal and executing the technology development effort, to include:

- Overall RDT&E Program Management Process
- Project Solicitation/Approval Process
 - Annual Call for Projects
 - Proposed Project Vetting Process
 - Contracting Process
- Project Execution/Monitoring
- Project Coordinator Responsibilities