PART I – THE SCHEDULE

SECTION C – DESCRIPTIONS/SPECS./ WORK STATEMENT

PERFORMANCE WORK STATEMENT (PWS)

PERFORMANCE WORK STATEMENT (PWS)

C.01 CONTRACT PURPOSE AND OBJECTIVE:

The objective of this Contract is to provide TRANSCOM technical support services directly to the Department of Energy's (DOE) Carlsbad Field Office (CBFO) to aid in the tracking of the transuranic (TRU) waste shipments as well as other radioactive material shipments to meet the DOE mission requirements.

C.02 BACKGROUND

The DOE Transportation Tracking and Communications System, known as TRANSCOM, is a transportation support program focused on the continuous monitoring, tracking, and communications with the movement of radioactive materials/waste and related equipment moves. DOE requires tracking of the nation's defense-related TRU waste shipments as well as radioactive material shipments to meet mission requirements. This necessitates a system to track and monitor trucks as they move materials from site to site, or movement of waste to the Waste Isolation Pilot Plant (WIPP) facility, or to other DOE facilities. The DOE EM CBFO is responsible for the management of the TRANSCOM program.

The TRANSCOM program relies upon a communication system of data transponders, satellite and terrestrial communications, hardware and software to provide near real-time positioning information for truck, rail, and barge shipments across the globe. The system provides shared views of assigned shipments through a web application. Account access is provided to State and Tribal Governments through each jurisdiction in which the shipments are traveling. The remainder of accounts is held by DOE employees and contractors. TRANSCOM has tracked over 20,000 radioactive material shipments since inception in 1992. The most recent major update of the TRANSCOM system was deployed in December 2012, and is on Version 3. The original system was developed and deployed by Oak Ridge National Laboratory in 1992.

C.03 SCOPE

The primary scope of this PWS is the operational, administrative, monitoring and technical support services for the DOE-CBFO TRANSCOM program, as well as performing required system maintenance and providing the necessary training to the TRANSCOM user community. These services include aspects of tracking and communication operations for shipments of high-interest to State and Tribal Governments. The TRANSCOM Communication Center (TCC) located in Carlsbad, New Mexico, is staffed twenty-four hours per day during periods of active shipments.

Ancillary scope to this PWS is the potential development of newer versions of the TRANSCOM system that capture functional improvements, or serve the changing needs of DOE, or partner agencies.

C.04 DEFINITIONS

System Maintenance – change to a parameter, system setting or feature, system attribute, account creation / revision / removal, addition of geo-fencing[1], addition of software service packs or

[1] Some radioactive waste shipments utilize established routes, or "geo-fencing," along with position descriptions to assist in monitoring shipments. TRU shipments use geo-fencing for all loaded shipments while other types of radioactive material shipments only utilize the feature as requested.

support patches, or any routine functions (data input) that are part of continuous operational monitoring. In limited instances, the contractor may determine the need for minor system changes, including unique programming to prevent or deter system failure(s) in response to emerging circumstances and situations. This is allowable under the framework of this definition, permitting the contractor to be immediately responsive to a limited, but necessary change without implementing a System Design Change.

System Design Change – changes that require unique and extensive programming development on one or more of the: database, web application, Java interface, mapping interface, or interface with the Qualcomm data system. System Design Changes will be handled as a separate Contract Line Item (CLIN) in accordance with Section C.9 of this PWS.

C.05 TRANSITION

The Contractor shall perform the activities, described in the PWS necessary to transition the work from the incumbent Contractor over a 30 day period in a manner that (1) assures that all work for which the Contractor is responsible under the contract is continued without disruption; (2) provides for an orderly transfer of resources responsibilities, and accountability from the incumbent Contractor; and (3) provides for the ability of the Contractor to perform the work in an efficient, effective, and safe manner. All Government property, including Government furnished and contractor-acquired property (i.e. materials) currently assigned to the incumbent TRANSCOM Contractor will be provided to the new Contractor during the transition period.

A formal written update on the status of the transition activities shall be submitted to the CO no later than seven (7) days after the transition period commences. This formal update shall include: current transition schedule, reasonable estimation for completion of transition activities, and if applicable, any significant concerns. The contractor will be provided with copies of existing Operating procedures (currently described as "desktop guides") for the TCC, Operating records, and Program documents. All other necessary information will be furnished on an as-needed basis.

The Contractor shall prepare all documentation and deliverables required to obtain appropriate background investigations for employees not previously employed by the incumbent TRANSCOM Contractor. For transitioned incumbent Contractor employees, the Contractor shall ensure that background investigations are updated and reflect the new Contractor's information. Contractor personnel are required to obtain site access badges prior to the initiation of any work.

C.06 CONTRACTOR RESPONSIBILITIES AND DESCRIPTION OF SERVICES

C. 6.1 SUMMARY OF OPERATIONS AND ADMINISTRATIVE SERVICES

The contractor shall provide the operational and administrative effort in the monitoring of shipments from the following:

- Special nuclear materials
- Spent nuclear fuel
- TRU waste and NTP equipment moves
- Other shipments, as authorized by DOE

The table below provides a range of shipments for each of the categories, along with related routing information.

Type and Routing	Range of Shipments per month		
	Low	**Moderate** (baseline value)	**High**
TRU waste, fixed routes	0 – 50	51 - 100	101 – 150
NTP Equipment, and unloaded; no routing constraints	0 – 65	66 - 130	121 – 195
Special nuclear materials and spent nuclear fuel, routing subject to NRC safeguards	0 – 10	11 – 30	31 – 60
All other shipments, as requested by DOE; routing defined on request	0 – 5	6 – 10	11 – 15
Total shipments	**Up to 130**	**Up to 270**	**Up to 420**

C. 6.1.1 OPERATIONS SERVICES

The contractor shall operate and manage the TRANSCOM program in accordance with the following performance elements:

A. Staffing of qualified personnel to monitor shipments on a 24/7 schedule (twenty-four hours per day; inclusive of holidays during periods of active shipping) until all such shipments have arrived at destination, or monitoring is no longer needed. The TCC is not required to be staffed during periods where no shipments are being monitored.

B. Provide Help Desk support to system users, and shippers.

C. Utilize and maintain TRANSCOM equipment and ensure backup equipment is kept in working order and can be used when needed.

D. Ensure government-furnished communications devices utilized by the TCC, including fax machine, hardwired phones, and an evacuation bag mobile phone are maintained at all times and are serviced as needed.

E. Maintain sufficient staff to provide for management, system operations, and TRANSCOM production system trouble-shooting, including TRANSCOM system maintenance.

F. Provide TRANSCOM account access to Group Administrators, Shippers, or Schedulers after authorization from the DOE TRANSCOM Contracting Officer Representative (COR).

G. Provide system access and tools for scheduling shipments, output reports, and shipment data in TRANSCOM.

H. Maintain and monitor Qualcomm (or similar data provider) tracking software and related services.

I. Implement shipment specific security measures in accordance with the type of shipment, as summarized in DOE G 460.2-1, Implementation Guide for Use with DOE O 460.2, Departmental Materials Transportation and Packaging Management.

J. Ensure shipment specific information is accessible to authorized users.

K. Per the established Records Inventory and Disposition Schedule (RIDS), disposition electronic records by archiving shipment data and information that is unique to shipment monitoring operations. The RIDS will be provided by DOE prior to contract and shall be maintained by the TRANSCOM contractor.

L. Provide technical support for TRANSCOM Users, which includes assisting users with process steps and troubleshooting problems associated with accessing the TRANSCOM system.

M. Maintain rapid-response processes for user support, and for assistance to shippers and dispatchers.

N. Provide support to DOE Program Offices in the preparation of shipment transportation plans and schedules, and in the development and implementation of shipment tabletop exercises.

O. The contractor is expected to maintain a 'fly-away bag' that supports quick evacuation and resuming operations and communications from another location. All equipment in the fly-away bag is Government-furnished equipment (GFE). Within the bag are an emergency mobile phone and mobile computing capability for the TRANSCOM operations area in the event of an evacuation or complete loss of supplied power.

P. Coordinate all tracking arrangements with the carriers and shipments schedulers.

Q. Assist transportation motor carriers in trouble-shooting transponder equipment, as related to connectivity to TRANSCOM.

R. Maintain vigilance and readiness to shift into contingency mode, and be capable to execute a continuity of operations mode (DOE O 150.1) when needed. Annually or as needed, the contractor will verify and update processes and procedures for contingencies, and continuity of operations. Ideally, such instances will take place during low shipping periods. Each operator should be able to demonstrate the process for evacuation, and set-up of operations at an alternate operating facility.

C.6.1.2 ADMINISTRATIVE SERVICES

The contractor shall support administrative functions and shall provide the following services and deliverables:

A. Provide quarterly program status reports to the DOE TRANSCOM COR within 15 calendar days of the preceding quarter.

B. Maintain existing program documentation; review at least once per year and either document that it remains current, or revise the document. Summary of such determinations should be captured in the quarterly program status report. Documents that will be updated after award

are the TCC Desk Guides, TRANSCOM Security Plan, TRANSCOM Contingency Plan, and System Configuration Plan. Due dates for these plans are listed in Attachment J-2.

C. Upon request, provide programmatic support to the DOE TRANSCOM COR for: document reviews; performing assessments; preparing presentations; participation in meetings; participation in conferences, demonstrations, and workshops; preparing reports; and preparing papers.

D. Develop and implement an annual customer survey to obtain feedback from TRANSCOM system users. Provide results in writing to DOE on, or before November 30 of each year.

E. Planning and coordination of an annual TRANSCOM Users Group Meeting; location and timing of such meeting shall be considerate of travel from the eastern and western continental U.S., seasonal events and influences, in cities with appropriate travel access, and lodging accommodations consistent with GSA rate schedules.

F. Maintain and implement the TRANSCOM Security Plan, covering operations, cyber-security, and physical security.

G. Perform background verifications for new user access that meet one of the four categorizations:
   1) Group administrator
   2) Shipper
   3) Scheduler
   4) System administrator

   Background verifications are not required for users with read-only access to the system.

H. DOE shall perform background verifications on Contractor personnel to ensure that trusted personnel are granted change/add access to the TRANSCOM system. Under existing conditions, "read-only" accounts will not require additional verification. The security check can be waived for users that provide proof of a valid Personal Identity Verification (PIV) that meets the National Institute of Standards and Technology (NIST) Federal Information Processing Standard 201 (also informally defined as a "HSPD12 badge").

I. Additional security checks shall be performed at any time when information indicates a potential security risk with a specific individual. Immediate consultation with the CBFO Security Manager is recommended when unresolvable scenarios are encountered.

J. Any time an individual or group account shows inappropriate activity, the instances shall be logged and the Group Administrator shall be contacted if applicable, or direct communication with the individual regarding the inappropriate activity. If the activity persists, the account shall be inactivated.

K. Additionally, the Contractor, as directed by the CO, shall provide transitioning support to DOE at the conclusion of the contract period of performance. Support functions are not limited to the following: identification of current employees and service dates to the CO, timely returns of DOE site badges to site security office, employee payroll and benefit documentation to the successor Contractor, if applicable, and return of any assigned Government property and associated records. The Contractor shall turn over all data

associated with the management and operation of the TCC to the DOE at regular intervals in accordance with records disposition schedules, and at a minimum of two months prior to the expiration of this contract.

C. 6.1.2.1 TRAINING SERVICES

A. Provide TRANSCOM training courses on a recurring schedule, inclusive of sharing the learning materials on digital files made available to the participants. It is expected that the majority of user training can occur using the online training modules available on the TRANSCOM website. The training schedule will be submitted to DOE twice per year, or as revised.

B. Update and maintain online training modules (training lessons with interactive tutorials), ensuring the content is current to the production version of the TRANSCOM system. Modules will cover general users, shippers, schedulers, motor carriers, group administrators, and internal staff.

C. Provide shipper/scheduler/carrier individualized training, as requested. It is estimated that the number of sessions range from twelve to twenty-four sessions per year, four hours per session, and may be conducted using remote methods, or in person at the Carlsbad Training Facility. Typically such sessions are one or two trainees, allowing a more direct and rapid approach to learning the functions specific to the user's need.

D. Responsible for creation of temporary training accounts, accessible to new users of the TRANSCOM system. For the purposes of training, ad-hoc data may be simulated, or use of active transponders, determined by the TRANSCOM Project Manager, as appropriate to the trainees.

E. At a minimum, three group administrator training classes shall be offered in person, as follows:

- Once per year at the Carlsbad Training Facility
- Once per year in Albuquerque, NM
- Once per year at a location determined by the DOE TRANSCOM COR (prior examples include Chicago, Denver, Dallas, and Atlanta)

Trainees will be responsible for providing their own computing devices compatible with access to the production version of TRANSCOM.

C. 07 TECHNICAL SERVICES

The TRANSCOM System consists of network hardware, production servers (database, web application, mapping, build, communication, and data storage), as well as contingency servers located in separate geographic locations. The TRANSCOM System in place is based on Microsoft Windows Server and Oracle Database software running on Intel-based hardware.

TRANSCOM requires the use of a web browser for the end-user interface. The system has been designed using HTML 5.0 coding, and is compatible with most browsers in use in 2013, inclusive of mobile browsers such as Apple Safari and Google Chrome. This allows remote access for mobile devices and light-performance computers.

The contractor shall provide the following technical services and deliverables:

A. Manage TRANSCOM database and system linkages.

B. Provide the addition of geofencing of new routes within 48-hours, or as specified within the request for periods greater than 48-hours.

C. Perform troubleshooting and problem resolutions.

D. Operations staff shall be responsive to TRANSCOM system inquiries and be able to assist in trouble-shooting issues. Unresolved users issues should be logged and resolved by a system specialist, if tied to the TRANSCOM System.

E. Software/Hardware Management Reports shall be provided annually and describe any pending issues, troubleshooting, debugging, and updates performed during the reporting period. Evaluate and make recommendations on hardware and software within report. This includes consideration of new technologies and techniques to assist in efficient operation.

F. Complete installations/updates as defined in the System Configuration Plan, and as needed to keep current with Operating Systems, network protocols, Oracle, Java, network applications, email SMS application, and security settings.

G. Review existing systems, processes, & procedures for problem areas, and correct as appropriate, or report issues that may require system design changes.

C.08 COMMUNICATION SERVICE PROVIDER

The contractor shall be responsible for acquiring and maintaining secure and reliable data communications service. The TRANSCOM system relies upon consistent high-availability service throughout the year (system availability should be 99.8% of hours per year averaged over each quarter, not inclusive of planned downtime). The current service for satellite and terrestrial communication is Qualcomm. Qualcomm services are required to be utilized at contract award. Post contract award, with a supporting business case, the contractor with the approval of the Contracting Officer may be permitted to utilize another provider. Any proposed changes shall be provided in writing to the Contracting Officer along with a transition plan and explanation of differences in service quality, cost and benefit to the program.

C. 09 SYSTEM DESIGN CHANGES/UPGRADES

As previously noted within Section C.03, ancillary scope to this PWS is the potential development of newer versions of the TRANSCOM system that capture functional improvements, or serve the changing needs of DOE, or partner agencies. Such developments are in accordance with the definition of a TRANCOM ***System Design Change*** as noted in Section C.04 – "changes that require unique and extensive programming development on one or more of the: database, web application, Java interface, mapping interface, or interface with the Qualcomm data system."

In general, DOE will use the following process defined within this section to identify, evaluate, negotiate and issue task orders to the Contractor to cover scope that meets one of two criteria:

1. TRANSCOM System Design Changes, or
2. A new service or product associated with the scope of this PWS

A. Proposals may be presented by either the contractor or the DOE TRANSCOM COR. The proposer will identify the benefits of the proposed change/upgrade, services and/or deliverables, propose appropriate timeframes for completion, and identify the level of complexity in terms of labor category and labor hours.

B. Any services to be furnished by the Contractor under this contract shall be ordered by issuance of task orders by the DOE Contracting Officer identified in Section G of the contract. Any work initiated prior to the issuance of a task order by the DOE Contracting Officer will be at the risk of the contractor.

C. TRANSCOM system upgrades shall be developed outside of the production instance to allow testing and debugging that will not compromise the production version. When undertaking a system upgrade, a revised TRANSCOM System Development Plan must define the development process, including the work breakdown structure, predecessor and dependent tasks, and the transition and implementation activities.

D. System design changes shall be preceded by a System Requirements Specification (updated), System Design Description (updated), System Development Plan, and a Testing and Acceptance Plan. These plans must be reviewed by the DOE TRANSCOM COR and approved by the CO before initiating development work. Additionally, changes to the System Requirements Document, or the System Design Description, should be revised in conjunction with the final completion and deployment of the upgrade.

E. A beta-version shall be made available to a subset of users to test and evaluate the compatibility of the system change. Feedback shall be used to make refinements to the system prior to release into a production environment. Task orders for new services and/or products will define the performance expectation or end result desired, identify applicable standards or criteria for acceptance, and provide a schedule of delivery for products or services. In general, DOE prefers to phase the work into smaller tasks to ensure that scope can be well defined, and performed as a firm-fixed price arrangement. A project schedule for major system changes shall be developed and submitted to the COR and CO for concurrence.

F. System hardware, software, interfacing, network security, input, and output aspects shall be defined, identified in a test plan and made available to the DOE TRANSCOM COR in advance of testing. Testing shall be segmented to allow progression in development. Changes in the test plan are also allowable, but shall be done in advance of running segmented tests.

G. Prior to switching to a new version of TRANSCOM, a beta-version shall be made available to the users to evaluate the functionality and compatibility of the software and hardware. Results and feedback from the beta-version shall be used to make final adjustments prior to transitioning to the production version. The COR will make an acceptance determination before final transition.

C.10 GOVERNMENT FURNISHED PROPERTY (GFP)

The existing GFP will be transferred to the contractor for use commensurate with the scope of work. The existing GFP is inclusive of the following:

Network Servers (web servers , production servers, development servers, backup servers), Server racks, Network Hardware, test transponder units, desktop and laptop computers and monitors, printers, copier, fax machine, office furniture, business and operating software, and miscellaneous equipment and parts. A complete list will be provided in Section J of the solicitation.

C.11 PROGRAM DOCUMENTS

The contractor shall adhere to the requirements basis documents identified in Section J Attachment, J-5. Sub-versions (i.e. designations of "a", "b," or "c") are not identified for the DOE directives, as compliance is expected for the most current version, unless the CO grants an exemption.