AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. Contract ID Code	Page 1 Of 20
Firm Fixed Price	

2. Amendment/Modification No.	3. Effective Date	4. Requisition/Purchase Req No.	5. Project No. (If applicable)
P00053	2014SEP09	SEE SCHEDULE	

6. Issued By Code W56HZV

U.S. ARMY CONTRACTING COMMAND
ROXANNE L. DUNN
WARREN, MICHIGAN 48397-5000
HTTP://CONTRACTING.TACOM.ARMY.MIL

EMAIL: ROXANNE.L.DUNN.CIV@MAIL.MIL

7. Administered By (If other than Item 6) Code S1403A

DCMA CHICAGO
1523 WEST CENTRAL ROAD
BLDG 203
ARLINGTON HEIGHTS IL 60005-2451

8. Name And Address Of Contractor (No., Street, City, County, State and Zip Code)

CATERPILLAR INC.
GOVERNMENTAL AND DEFENSE PRODUCTS
14009 OLD GALENA RD TC-A
MOSSVILLE, IL 61552-7547

Code 11083 | Facility Code

☐ **9A. Amendment Of Solicitation No.**

9B. Dated (See Item 11)

☒ **10A. Modification Of Contract/Order No.**
W56HZV-08-D-0169

10B. Dated (See Item 13)
2008JUN06

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ **The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers**
☐ **is extended,** ☐ **is not extended.**

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendments: (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. Accounting And Appropriation Data (If required)

NO CHANGE TO OBLIGATION DATA

13. THIS ITEM ONLY APPLIES TO MODIFICATIONS OF CONTRACTS/ORDERS
It Modifies The Contract/Order No. As Described In Item 14.

☐ **A. This Change Order is Issued Pursuant To: The Changes Set Forth In Item 14 Are Made In The Contract/Order No. In Item 10A.**

☐ **B. The Above Numbered Contract/Order Is Modified To Reflect The Administrative Changes (such as changes in paying office, appropriation data, etc.) Set Forth In Item 14, Pursuant To The Authority of FAR 43.103(b).**

☒ **C. This Supplemental Agreement Is Entered Into Pursuant To Authority Of:** Mutual Agreement - FAR 43.103(a)(3)

☐ **D. Other (Specify type of modification and authority)**

E. IMPORTANT: Contractor ☐ **is not,** ☒ **is required to sign this document and return _____ copies to the Issuing Office.**

14. Description Of Amendment/Modification (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

SEE SECOND PAGE FOR DESCRIPTION

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. Name And Title Of Signer (Type or print)		16A. Name And Title Of Contracting Officer (Type or print) TRISH PIERCE PATRICIA.PIERCE3.CIV@MAIL.MIL (586)282-8128	
15B. Contractor/Offeror _____ (Signature of person authorized to sign)	15C. Date Signed	16B. United States Of America By /SIGNED/ (Signature of Contracting Officer)	16C. Date Signed 2014SEP09

SECTION A - SUPPLEMENTAL INFORMATION

Buyer Name: ROXANNE L. DUNN
Buyer Office Symbol/Telephone Number: CCTA-HBF-C/(586)282-4823
Type of Contract: Firm Fixed Price
Kind of Contract: System Acquisition Contracts
Type of Business: Large Business Performing in U.S.
Surveillance Criticality Designator: C
Contract Expiration Date: 2018JUN08

*** End of Narrative A0000 ***

SECTION A - SUPPLEMENTAL INFORMATION

Modification P00053 is a bilateral action:

1. The purpose of this modification is to change the contract as follows:

SECTION B: Supplies or Services and Prices/Costs

2. The scope of work section C.6.6.2.2.3 for the training aids is hereby incorporated into the base contract.

3. IAW Scope of Work section C.6.6.2.2.3, the following CLIN is hereby established for the T-5/D6K Light Dozer and T-9/D7R2 Medium Dozer Fort Leonard Wood, MO extensive dozer maintenance training: CLIN 0740.

4. Contractor training/installation personnel and training kit being established under this modification are hereby incorporated as Attachment 0033 to the base contract.

5. All other terms and conditions remain unchanged and in full force and effect.

*** END OF NARRATIVE A0051 ***

Name of Offeror or Contractor: CATERPILLAR INC.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS				
0740	DK6 & DR7 DOZER MAINTENANCE TRAINING			$ 977,251.39000	$ 977,251.39
	COMMODITY NAME: ONE-TIME - FT LEONARD WOOD MO PSC: 2815 CLIN CONTRACT TYPE: Firm Fixed Price				
	SECURITY CLASS: Unclassified				
	In accordance with the basic contract Scope of Work Section C.6.6.2.2.3. T-5/D6K Light Dozer & T-9/D7RII Medium Dozer Training Aids and attachment 0033.				
	(End of narrative A001)				
	Packaging and Marking				
	PACKAGING/PACKING/SPECIFICATIONS: SEE SECTION D.1 LEVEL PRESERVATION: Commercial LEVEL PACKING: Commercial				
	(End of narrative D001)				
	Inspection and Acceptance INSPECTION: Origin ACCEPTANCE: Origin				
	FOB POINT: Destination				

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

SCOPE OF WORK

C.1 Hardware Deliveries.

C.1.1 The Contractor shall manufacture and deliver a Dozer, Light, (T-5) types I and II and Dozer, Medium, (T-9) types I and II. These dozers shall be modified to meet all the technical requirements of Purchase Description (PD) "Family of Dozers (FOD)" PD No. ATPD-2371 (Attachment 0001). Delivery Orders will specify the vehicle type, quantity, delivery dates, destinations, level of preservation and paint color. All hardware listed in C.1.2, C.1.3, and C.1.4 shall be included in the unit price of the Dozers.

C.l.2 Basic Issue Items (BII).

The Contractor shall provide BII for each vehicle. BII are essential to place and maintain the FODs in operation, and to perform routine operator maintenance and emergency repairs. Emergency repairs are defined as repairs that are non-deferrable until mission completion. BII include those select common and special purpose tools, operator publications, and safety equipment (i.e. fire extinguishers) authorized for the FODs. The Contractor shall list BII by National Stock Number (NSN) in a separate operator's manual appendix. The Contractor shall over-pack the list and the components of the BII with each dozer In Accordance With (IAW) the packaging instructions developed for the Department of the Army Technical Manuals (TMs).

C.l.3 Initial Service Package (ISP).

The Contractor shall provide an ISP for each dozer. The Contractor shall over-pack the list and the components of the ISP with each vehicle IAW the packaging instructions developed for the TMs. The ISP shall consist of all service parts/items required to meet warranty service intervals and perform the first scheduled maintenance. The Contractor shall mark each item with the nomenclature, part number and NSN to ensure the correct application IAW the packaging instructions developed for the TMs.

C.l.4 Component of End Items (COEI).

The Contractor shall provide the COEI for each dozer. COEI are components that are part of the end item but must be removed from the dozer and separately packaged for military transportation. These components are listed by NSN separately in the appendix to the operator's manual. The Contractor shall over-pack the list and the components of the COEI with each dozer IAW the packaging instructions developed for the TMs.

C.2 Data.

The Contractor shall deliver all data in English. Data delivered under this contract shall be submitted electronically via CD ROM or electronic mail in MS Office compatible format.

C.3 Meetings and Reviews.

C.3.l The Contractor and Government will periodically have meetings and reviews during this contract's performance period, as outlined in C.3.2 below. Meetings are used to review progress and provide guidance on technical, logistics, contractual or other issues that arise during contract performance. Prior to meetings, the Government and Contractor will jointly develop an agenda. Meetings will be held at both Contractor and Government facilities, if any classified information is to be discussed the meeting must be held at a secure facility. When meetings are at the Contractor's facility, the Contractor will ensure the following are available for the Government's use: production or other required versions of the FODs needed for viewing; required technical, logistics or other documentation (including drawings, computer data bases, publications, and other data); and computer resources, as needed. The Contractor shall submit minutes of each meeting within 5 working days after each meeting and deliver in accordance with CDRL A001. Meeting minutes shall not include any classified information.

C.3.2 The Contractor shall participate in the following meetings:

C.3.2.l Start-of-Work Meeting.

Within 30 days of contract award, TACOM will host a Start of Work meeting at the Detroit Arsenal in Warren, Michigan. The start of work meeting may last up to three days and the Contractor shall present its plan to manage and develop engineering and logistics products and services. The Contractor and Government will jointly review (instead of develop) an Integrated Logistics Support (ILS) schedule at the start of work meeting that shall identify dates for all logistics deliverables. The Contractor shall have completed Attachment 0004 with the list of proposed Item Unique Identification (IUID) marked components for each dozer. The meeting will focus on reviewing the following:

1. Contract terms and conditions

2. Data requirements
3. Required specifications
4. Integrated Master Schedule for armor
5. Test requirements (no classified information)
6. Integrated Logistics Support (ILS) Schedule
7. Logistics requirements

C.3.2.2 Pre-Test Meeting.

Pre-Test Meeting, shall last one day and be used to review testing, logistics, and training support. The initial meeting shall take place at Aberdeen Proving Ground, MD at least 30 days prior to beginning Government First Article Test (FAT).

C.3.2.3 Program Status Reviews.

Program Status Reviews (PSRs) will be held approximately quarterly, beginning 90 days after the Start of Work meeting until completion of all data deliverables. The meetings will encompass the Contractor's production status, data deliverable status, and progress on all logistics requirements. Supportability Integrated Product Team (SIPT) meetings may be part of the PSRs, or separately scheduled. Reviews are held at the US Army Tank-automotive and Armaments Command, Warren MI, and will last up to two days. The Government and Contractor will jointly schedule the meetings and establish the agenda.

C.3.2.4 In-Process Reviews (IPRs).

The Government may request periodic IPRs at the Contractors facility to review engineering and logistics issues and reach consensus for resolution.

C.3.2.5 Provisioning Conference.

Provisioning Conferences will be held IAW C.6.4.5.

C.4 Dozer Configuration Changes.

C.4.1 Configuration Baseline.

The Contractor shall be responsible for maintaining configuration control of the FODs. The Contractor shall establish a production configuration baseline for the dozer after successful completion of both the Contractors testing and the Government's FAT. This baseline will identify and document the functional and physical characteristics of the dozers. The Government acknowledges that the Contractor may want to offer to the Government configuration changes being introduced to its commercial production during the term of this contract. However, it's important for the Government to assess the impact of any proposed dozer changes to the logistics and technical requirements established for this program. The Contractor is therefore required to notify the Government prior to implementing any configuration changes that impact form, fit, or function. The Government can elect to place no additional orders under this contract if the proposed changes are not acceptable to the Government, and the Government will be under no further obligation pursuant to the clause at 52.216-21, Requirements, to order any additional quantities of dozers. The Government will issue a no-cost cancellation to the contract.

C.4.2 Engineering Changes - Contractor Initiated.

C.4.2.1 Configuration Change Report.

The Contractor shall submit requests for approval of changes in the form of a configuration change report for any configuration change that impacts form, fit or function to the configuration baseline. The Contractor shall submit the report to the Contracting Officer at least 60 days before the proposed application date, in accordance with CDRL A002. The request for change shall include the following:

a. Rationale to support the necessity of making the change;
b. Any test results, planned testing or other information to show acceptability;
c. Identification of the affected parts and assemblies, drawings, sketches, calculations and other data necessary to define the change you are proposing;
d. Identification of any logistics impact to each of the 10 elements of ILS, in accordance with AR 700-127.
e. Any proposed decrease in contract price; and
f. Identification, by serial number, of the systems affected.

C.4.3 Government Review.

The Government may require the Contractor to perform additional tests to verify acceptability of any proposed change. The Government will determine the extent of testing up to and including a complete FAT for that change. The Contractor will perform the tests at no additional cost to the Government.

C.4.4 Responsibility for Failure Due to Changes.

The Government's acknowledgement of the Contractor's change does not relieve the Contractor from its responsibility to furnish all items in conformance with the contract performance requirements.

C.4.5 Responsibility for the Cost of Changes.

The responsibility for the cost of changes is as follows:

a. This is a firm fixed-price contract for the first five years and a fixed price with EPA contract for the five additional option years. There will be no price increases as a result of a Contractor initiated configuration change, including model changes. Anticipated model changes shall be priced out at the time of proposal submission and included in the proposed dozers price.

b. The Government is not responsible for additional testing or software costs associated with any changes the Contractor submits, including model changes.

c. When a change results in reduced Contractor costs, the Government will accept any equitable reduction in contract price offered by the Contractor.

d. The Government is not liable for any costs the Contractor may incur, due to delay in contract performance, as a result of any of the Contractor's requests for change.

C.4.6 Responsibility for Data.

a. The Contractor shall submit, at no cost to the Government, revisions to all affected contractual data deliverables, whether they affect form, fit, or function or not, within 90 days of making the change.

b. At the time of a model change, the parties will negotiate a price for any changes requested by the Government to data, including logistics, previously submitted under the contract.

C.4.7 Definitions.

The definition of Form, Fit and Function are:

Form: Fits and functions in the same way as the item it replaces (interchangeable, substitutable) and may include components that are of different materials than the replaced components, but do not affect fit or function (interchangeable, Substitutable). Replacement, repair, service or maintenance of the item is exactly the same as the item it replaces (non-substitutable).

Fit: Item goes onto, into or attached, to the equipment exactly as the item it replaces.
No difference in mounting, interface or operation between replaced and replacing parts. There is an exact fit match.

Function: Item operates exactly as the item it replaces, with no functional difference between the old, replaced item and the new, replacing item. When appropriate, the replacing item shall be inspected, replaced, repaired and/or otherwise maintained in exactly the same method as the item it replaces.

C.4.8 Configuration Baseline Crew Protection Kit.

The Government will assume configuration control of the CPK and establish the Product Baseline after successful completion of both the Contractor's and the Government's portions of the FATs. The Product Configuration Documentation is defined as the documentation required for the product baseline, to a level o detail commensurate with the Government logistics support requirements in accordance with the requirements of this contract. The PCD delivered to the Government to establish and initially release the Product Baseline for the armor kit shall include incorporation of approved changes to date and required corrections resulting from test.

C.4.8.1 Configuration Control CPK/SAS.

The Contractor shall propose changes to the armor kit product configuration baseline via the submission of Engineering Change Proposals (ECPs), Value Engineering Change Proposals (VECPs), or Requests for Deviations (RFDs) in accordance with the below requirements. Sufficient supporting data to evaluate each proposed change, which includes, but is not limited to the requirements in C.4.2, shall be submitted with each request. The Contractor shall e-mail requests for ECP Numbers to the Government Configuration Data Management representative.

C.4.8.1.1 Engineering Changes - Contractor Requested.

The Contractor shall submit ECPs in accordance with DI-CMAN-80639C (CDRL A027) and Data Delivery Description (DDD) for ECPs, Attachment

0020, immediately upon determination of a need for such changes. Changes to CAD data shall be reflected as CAD mark-ups or "preliminary" revisions. Changes to non-CAD data shall be described on a Notice of Revision (NOR) for each affected-drawing in the ECP in accordance with DI-CMAN-80642C (CDRL A028) and the DDD for NORs, Attachment 0021. The Contractor shall not implement any ECP changes prior to Government ECP approval. The Contractor shall not incorporate any ECP into the end item hardware without prior written approval of the PCO.

C.4.8.1.1.1. The Government may require the Contractor to perform additional tests to verify acceptability of any proposed change. The Government will determine the extent of testing up to and including a complete FAT for that change. The Contractor will perform the tests at no additional cost to the Government.

C.4.8.1.2 Engineering Changes Government Directed.

In the event the Government desires a change to the armor kit configuration, the PCO will request, in writing, a technical/price proposal from the Contractor. The Contractor shall submit ECPs in accordance with DI-CMAN-80639C (CDRL A027) and Data Delivery Description (DDD) for ECPs, Attachment 0020. Changes to CAD data shall be reflected as CAD mark-ups or "preliminary" revisions. Changes to non-CAD data shall be described on a Notice of Revision (NOR) for each affected drawing in the ECP in accordance with DI-CMAN-80642C (CDRL A028) and the DDD for NORs, Attachment 0021.

C.4.8.1.3 Value Engineering Change Proposals (VECPs).

The Contractor shall prepare VECPs in the same manner as Class I ECPs.

C.4.8.1.3.1 The Contractor shall prepare and submit an Engineering Release Record (ERR) and submit an ERR package for each approved armor kit ECP in accordance with the ERR requirements of this contract (CDRL A030).

C.4.8.2 Configuration Control-Variances FOD and CPK/SAS.

Requests for Deviations (RFDs). Contractor desire to temporarily deviate from or waive requirements of the FOD or CPK during production shall be submitted as RFDs, prepared in accordance with CDRL A029 and the Data Delivery Description (DDD)-RFD, Attachment 0022. RFDs shall be properly classified in accordance with the classification requirements in the DDD-RFD. Critical RFDs are not allowed. Recurring deviations or deviations effecting a change to the PCD may be rejected by the Government and returned for resubmission as a formal Class 1 ECP.

C.4.8.2.l Effectivity Certification.

The Contractor shall maintain the original effectivity point certification on file. This information shall be made available to the Government upon request and RFDs affecting the CPK shall be reflected in the armor kit Configuration Status Accounting (CSA) Reports (CDRL A031).

C.4.8.3. Configuration Status Accounting (CSA) CPK/SAS.

The Contractor shall provide a CSA report in accordance with DI-CMAN-81253A (CDRL A031). This information shall be recorded and maintained by the Contractor for the term of this contract. As applicable, CSA reports shall include, but are not limited to, status of changes and deviations, status of resulting action items, PCD affected by proposed changes and deviations, effectivity and incorporation status of approved changes and deviations, ERRs pending submittal, and status of submitted ERRs.

C.4.8.4. Configuration Identification CPK/SAS.

The Contractor shall perform data management, provide the configuration documentation to document the physical and functional characteristics of the armor kit, establish baselines for configuration control, and assign product and document identifiers as required by this contract (CDRL A030).

C.4.8.4.1. Engineering Release Record (ERR).

Engineering release is an action that formally approves configuration documentation and makes configuration documentation available for its intended use. The ERR is the vehicle by which the Contractor initially delivers new PCD to establish the product baseline (i.e., "initial release"), and delivers revised PCD implementing approved changes to the existing Product Baseline (i.e., "change release"), subsequent to a Government-approved ECP.

C.4.8.4.l.l ERR Package.

The ERR Package is defined as the Engineering Release Record submitted concurrently with the new and revised PCD for Product Baseline initial release and Product Baseline change release. The Contractor shall create and revise product data to reflect the current, Government-approved, Product Baseline Configuration for the complete B-Kit TDP for the entire contract performance period. (CDRL A030)

C.4.8.4.l.2. The Contractor shall prepare and submit a digital initial release ERR package in accordance with DI-CMAN-80463C (CDRL A030) for Government approval to initially release (incrementally or in whole) the Product Baseline armor kit TDP (with required A-Kit data per C.12). The Contractor shall also submit change release ERR packages incorporating changes to the Product Baseline for each Government-approved ECP. The ERR number used for change release shall be the same as the Government-approved ECP number. An ERR is required for each drawing and model or group of drawings and models submitted to the Government for approval and formal release. The Contractor shall prevent premature release of a PCD related to an ECP until the Government has approved the ECP and subsequent ERR. Multiple ECPs on one ERR is not allowed. The revision history description for all PCD shall include the applicable ERR Number authorized to release the data.

C.4.8.5 Configuration Data Management.

The Contractor shall assign a unique identifier to PCD and utilize disciplined version control in managing digital data. The Contractor shall retain all Government-approved revisions (versions) of each document and model representation to provide a traceable history in order to access the correct revision of an item of data when needed. The content of a document and model revision is fixed once the Government approves it. Changes are allowed only by a superseding document revision (via Government-approved ECP) and subsequent approval of the new revision by the Government (via ERR). The Contractor shall insure that all representations (i.e., hard copy, raster, Adobe PDF, native CAD, neutral CAD, etc.) of a single version or revision of PCD, delivered to the Government for approval and subsequently maintained by the Contractor for the term of this contract, are identical. The terms version and revision as used herein are interchangeable (CDRLs A027, A028, A030).

C.4.8.6.l End of Contract.

The Contractor shall transfer all master PCDs to the Government immediately upon completion of this contract.

C.5 Dozer Hand-Off.

The Contractor is responsible to hand-off all equipment deliverable under this contract to each gaining unit. The Contractor shall perform the hand-off and activate the vehicle warranty. The Contractor shall deliver all the vehicles ready to operate prior to New Equipment Training. The hand-off effort includes:

a. Re-assembly of the vehicle to a fully operational configuration if the vehicle is shipped with any components removed. All tools and equipment required to complete the re-assembly will be the Contractors responsibility.

b. Inventory of any material shipped with the vehicle, e.g., technical publications, special tools, initial service packages.

c. Provide one-hour familiarization for 6-8 people from the receiving unit on first machine delivered so they can safely move the vehicle until full training is conducted. Familiarization includes operator start-up, operating and shut down procedures, safe operations, and daily and weekly service locations and checks.

d. Activation of the warranty, which includes stamping the effective date (date of delivery to gaining unit) on the vehicle warranty data plate, discussing with the unit the terms and details of warranty administration, and pointing out the warranty information included in the TMs. The Contractor shall prepare a report which contains the warranty implementation date by vehicle type, vehicle serial number, shipping destination, and DODAAC in accordance with CDRL A003.

C.6 Logistics.

C.6.1 Logistics Management.

The Contractor shall manage and develop a logistics support package for the FOD program, and co-chair Government scheduled Supportability Integrated Product Team (SIPT) meetings (C.3.2.3) approximately quarterly. The Contractor shall appoint an ILS Manager responsible for the entire logistics scope of this contract, on a level commensurate with the Engineering Manager. The Contractor shall present their ILS schedule at the start of work meeting.

C.6.1.1 MANPRINT.

The Contractor shall maintain a MANPRINT tracking log that documents MANPRINT issues and resolutions. This log shall be presented for review and discussion monthly or as requested by the PM office. The contractor will also host a final MANPRINT assessment conference after completion of verification effort to review and provide final resolution of all MANPRINT issues.

C.6.2 Integrated Logistics Support (ILS) Development.

The Contractor shall use MIL-PRF-49S06, Performance Specification, and Logistics Management Information (LMI) for use in identifying content, delivery and related guidance for logistics data.

C.6.3 Maintenance Planning.

The Contractor shall conduct Maintenance Planning to determine the maintainability characteristics of the FOD. The supportability analysis shall be documented in the Contractors format as an LMI summary entitled Maintenance Analysis, and will identify the maintenance functions, level of maintenance, manpower, and support equipment required for each repairable item. The analysis will be documented in end item hardware breakdown sequence, using LSA Control Numbers (LCNs). Functional Group Codes will NOT be used. The Supplemental Armor Set shall be documented at the B indenture level under the end item, with a unique LCN. The Contractor shall annotate the top 100 critical items for parts support in the maintenance analysis. Criteria such as long lead items, mission essential and high suspected failure rates should be used in determining criticality. Critical items can be either a repairable component or non\--repairable part. A preliminary report formatted and containing all the elements of a MAC shall be prepared as part of the initial Maintenance Analysis review. The Contractor shall select and annotate each operator and maintenance task in the task analysis where the Contractor recommends the task be added to the TRADOC Program of Instruction (POI) and/or New Equipment Training (NET) for each specific MOS. Instructions for conduct of the analysis are contained in Attachment 0005 (LMI Maintenance Analysis). The Maintenance Analysis shall be delivered IAW CDRL A004. The Contractor shall facilitate a joint Government-Contractor conference at the Contractors facility to review the initial maintenance analysis.

C.6.3.1 National Maintenance Work Requirement (NMWR) Component Candidates and Analysis.

C.6.3.1.1 NMWR Candidate List.

The NMWR candidate list will be a product of the Maintenance Analysis (C.6.3). Any component coded for repair at the sustainment level of maintenance with a unit price in excess of $1000 will be a NMWR candidate. The Contractor will annotate these components on the Maintenance Analysis and provide them as a separate list at the first Maintenance Analysis review. The Government will review and approve the final list of NMWR candidates at the final Maintenance Analysis review.

C.6.3.1.2 NMWR Data Summary.

The Contractor shall perform a supportability analysis called a NMWR data summary for each component on the Government approved NMWR candidate list. The LMI summary may be in the Contractor's format, and shall be documented in accordance with Attachment 0006 (LMI NMWR Data Summary). The Contractor shall also indicate for each NMWR candidate whether the item is currently available as a remanufactured, rebuilt or otherwise refurbished component. The NMWR Data Summary shall be delivered in accordance with CDRL A005.

C.6.3.2 Equipment Control Record (DA Form 2408-9).

The Contractor shall prepare a DA Form 2408-9, Equipment Control Records (Government furnished form) for each dozer it delivers. The Contractor shall prepare the form in accordance with the instructions in paragraph 5-7 c (3) Acceptance and registration of DA PAM 750\-8, dated 25 Feb 05, to report acceptance of each dozer into the U.S. Army inventory. A blank copy of the form is enclosed at Attachment 0007. The Contractor shall have the Defense Contract Management Command (DCMC) Quality Assurance Representative (QAR) complete blocks 22 and 23 as the person accepting the item into the Army inventory. After the DCMC QAR completes blocks 22 and 23, the Contractor shall distribute the DA Form 2408-9 as follows:

a. Submit the control copy (copy # 1) within five working days to:

Director
U.S. Army Materiel Command Logistic Support Activity ATTN: AMXLS-MR
Redstone Arsenal, AL 35898-7466

b. Submit the TACOM copy (copy #2) within five working days to:

Commander
U.S. Army Tank-automotive and Armaments Command ATTN: AMSTA-LC-CJCD, MS326
6501 East 11 Mile Rd.
Warren, MI 48397-5000

c. Place Log Book copy (copy # 3) in a dry, protected location, secured in the operator station, and shipped with each vehicle.

C.6.3.3 Support Equipment Tools and Test Equipment (STTE).

The Contractor shall deliver a list of Support Equipment Tools and Test Equipment for the FODs. The source data for this list will be the Maintenance Analysis, performed per Paragraph C.6.3. The list shall be in tabular form and shall identify special tools and test equipment not contained in U.S. Army Supply Catalogs. Supply Catalogs (SCs) contain common tool sets and are listed at US Army LOGSA web site at https://weblog.logsa.army.mil/sko/index.cfm. Maximum use of common tools, support equipment, and TMDE normally organic to the user is preferred. The list shall provide Nomenclature, Cage Code, National Stock Number (NSN), if assigned, Part Number, level of maintenance, and price of each item on the list. The STTE list shall be delivered in accordance with CDRL A006.

Note: New TMDE items, those not identified in U.S. Army Supply Catalogs may require special source and calibration documentation in

order to update/ provide data for possible inclusion to the TMDE register (DA Pam 700-21-1). The Contractor shall provide all required data for possible data for all new TMDE. http://www.army.mil/usapa/epubs/xmlyubs/p700_60/head.xm1" Note: The following paragraphs are included to clarify special tools for Army use. Special tools are not identified as components in Sets, Kits, and Outfits (SKO) SC. Special tools are:

a. Fabricated tools that are made from stocked items of bulk material, such as metal bars, sheets, rods, rope, lengths of chain, hasps, fasteners, and so forth. Fabricated tools are drawing number controlled and documented by LCNs in RPSTLs and located in TMs as appendices. Fabricated tools are used on a single end item.

b. Tools that are supplied for military applications only (that is, a cannon tube artillery bore brush, BII) or tools having great military use but having little commercial application.

c. Tools designed to perform a specific task for use on a specific end item or on a specific component of an end item and not available in the common tool load that supports that end item/unit (for example, a spanner wrench used on a specific Ford engine model and on another engine in the Army inventory).

C.6.3.4 Diagnostics.

C.6.3.4.1 Electronic Diagnostic Testability Analysis.

The Contractor shall perform a testability analysis of the FOD diagnostics capability, to include number and types of diagnostic tests available for all dozer components, assemblies, systems and subsystems. The analysis shall specify number and types of required Test, Measurement, and Diagnostic Equipment (TMDE), as well as a brief narrative description of the benefits to be derived from each diagnostic test. The report shall include a description of any on-board electronic diagnostic systems that may be interrogated for the purpose of maintenance and troubleshooting via an on-board diagnostic display screen. The report shall also contain all standard data, data descriptions and error codes necessary to communicate with the electronic control module (ECM) /electronic control unit (ECU) and to maintain the electronically controlled subsystems. The Contractor shall provide data, which specifies limits for all parameters, and how to interpret data outside limits. The Contractor shall maximize the use of embedded Built-\-in-Test (BIT) / Built-in Test Equipment (BITE) diagnostic capabilities, and fully document and support embedded system software. Any on\-board data buses and diagnostic connectors shall also be identified in detail. The analysis shall be delivered in accordance with CDRL A007.

C.6.3.4.2 Analog Diagnostic Testability Analysis.

The Contractor shall perform a testability analysis of the FOD. The analysis shall include documentation showing complete analog fault isolation capabilities and troubleshooting methodology for the FOD. The Contractor will refer to the list of proposed tests that are referenced in Appendix C of the DCA Test Guide (Report #CR-82-0588-003 Rev 1) enclosed as Attachment 0008. The Contractor can add or delete tests from Appendix C as necessary to best obtain dozer diagnostics. The Contractor shall also provide the original equipment manufacturers recommended minimum and maximum parameters for all Diagnostic Connector Assembly (DCA) and Transducer Kit (TK) monitored components. The Contractor shall specify level of difficulty and time required to physically access test points and type of TMDE equipment. The testability analysis shall be delivered in accordance with CDRL A007.

C.6.3.4.3 The Contractor shall provide software required to interface, retrieve, and interpret the dozers systems diagnostics data, as identified in Paragraph 3.7.2.1 of the PD unless an on-board system is provided in accordance with 3.7.2.3 of the PD. Software shall not contain proprietary restrictions on run-time fees. The Contractor shall provide updates to this software no less then once a year until contract completion, if required.

C.6.3.4.4 For systems that provide a completely on-board embedded solution with no external automated devices necessary, the ability to interface with the vehicle databus to retrieve and interpret the vehicle systems diagnostic data must still be readily available. The Contractor shall provide any necessary software for this action in accordance with Paragraph C.6.3.4.3.

C.6.4 Provisioning.

C.6.4.1 Engineering Data for provisioning (EDFP).

Provisioning illustrations shall consist of illustrations such as company drawings or commercial parts book pages that clearly identify each new item and its part number. The Contractor shall furnish an illustration, either hard copy or electronic, that is legible and representative for each P source-coded part number being provisioned. Illustrations shall be annotated with the affected Provisioning Line Item Sequence Number (PLISN) and provisioning Contract Control Number (PCCN) for the system. Illustrations are not required for items accompanied by a copy of provisioning screening which indicates the item had previously been assigned a valid national stock number. EDFP shall be submitted in accordance with CDRL A008.

C.6.4.2 Provisioning Parts List (PPL).

The Contractor shall develop and deliver LMI provisioning data (PPL) for all parts, special tools, BII, and COEI, identified on the FODs. Each incremental submission shall have at least 800 lines, but no more than 1500 lines, unless approved in advance by the

Government. Each incremental submission shall include at least one major assembly. Prime part numbers and Commercial and Government Entity (CAGE) Codes will reflect the original equipment manufacturers information unless that part is modified, changing form, fit, and function. PPL shall be prepared and submitted in accordance with Provisioning Requirements Worksheet Attachment 0009 and CDRL A009.

C.6.4.3 Provisioning Master Record (PMR).

The Contractor shall submit LMI provisioning data (PPL) either on-line or electronically. The Government will discuss each method at the Provisioning Guidance Conference as part of the start of work meeting (Paragraph C.3.2.1). All submissions of the LMI PPL data must be compatible with TACOM Commodity Command Standard System (CCSS)/Provisioning on Line System in accordance with Automated Data Systems Manual (ADSM) ADSM 18-LEA-JBE-ZZZ-UM-06 and must pass all CCSS edits. The Contractor shall correct all rejects within 5 working days.

C.6.4.4 Provisioning Screening.

The Contractor shall conduct provisioning screening on each item on the PPL for standardization or NSN identification of all P source\-coded items. This screening will be used to select valid part numbers, NSNs, and current unit of measure/issue prices for provisioning purposes. The Contractor shall screen common hardware items (nuts, bolts, screws, washers, lock washers, rivets, etc.) by technical characteristics. The screening results must be available to review at each provisioning conference. The Contractor shall conduct provisioning screening using FLIS, WEBFLIS, or by batch submittal part numbers to DLIS.

C.6.4.5 Provisioning Conferences.

The Contractor will host a provisioning conference (unless otherwise directed by the Government) not to exceed five working days for each incremental review. Provisioning data presented for review will include complete assemblies. The PPL data to be reviewed shall be provided in advance to each conference attendee per CDRL A009.

C.6.5 Technical Publications.

The Contractor shall prepare and deliver a set of Lubrication Orders (LO) , Department of the Army Technical Manual (DATM) Operators and Maintenance Manuals IAW MIL-STD-40051-2 and MIL-PRF-63004D(TM) for the FODs in accordance with Attachment 0010, General Publication Requirements, Attachment 011, Repair Parts and Special Tools List (RPSTL) Requirements, and Attachments 0012-0015 Technical Manual Requirements Matrix, Tables A-II through A-VI, and as specified in the related DD Forms 1423.

C.6.5.1 DA Manuals, DA RPSTLs and ETMs.

The Contractor shall prepare the DA manuals to reflect and support only the approved configuration being procured, including special purpose kits. The Contractor shall prepare and deliver a separate DA RPSTL for each configuration in accordance with Attachment 0011 Repair Parts and Special Tools List Requirements and Attachment 0015, TM Requirements Matrix. The CCSS RPSTLs text shall be downloaded from the Army Provisioning Master Record (PMR). Contractor prepared illustrations (Figures) shall be incorporated into the download. The RPSTL shall include sustainment level parts with illustrations. In addition, the Contractor shall prepare and deliver ETMs and all related editable text and art files for each set of manuals.

The DA manuals shall be:

a. Light (T-5) Type I and II Dozer

CDRL A010 TM 5-2410-240-10 Operator's Manual
CDRL A011 TM 5-2410-240-23 Field Maintenance Manual
CDRL A012 LO 5-2410-240-13 Lubrication Order
CDRL A013 TM 5-2410-240-24P Field Maintenance Repair Parts and Special Tools List (Includes Sustainment Maintenance)

b. Medium (T-9) Type I and II Dozer (if applicable/needed)

CDRL B010 TM 5-2410-241-10 Operator's Manual
CDRL B011 TM 5-2410-241-23 Field Maintenance Manual
CDRL B012 LO 5-2410-241-13 Lubrication Order
CDRL B013 TM 5-2410-241-24P Field Maintenance Repair Parts and Special Tools List (Includes Sustainment Maintenance)

c. The separate Supplemental Armor Set Technical Bulletin (TB) shall be identified and delivered as follows:

CDRL A024 TB 5-2410-240-13&P Supplemental Armor Set TB for T5
CDRL B014 TB 5-2410-241-13&P Supplemental Armor Set TB for T9 (if applicable)

The Maintenance (-23) and RPSTL (-23P) manuals identified above shall be divided into volumes if the page count for that manual exceeds

1500 pages (750 sheets.) If there is sufficient commonality between the requested models (T5 and T9 Dozers), the Government reserves the right to request a common set of manuals.

C.6.5.1.1 This Scope of Work has been deleted in its entirety.

C.6.5.2 Warranty information and requirements shall be included in the appropriate manuals.

C.6.5.3 The Contractor shall perform a 100% hands-on validation of all tasks developed for the Operator's (TM-10), LOs and Maintenance (TM-23) manuals to ensure accuracy and completeness. The Contractor shall ensure that the manuals accurately reflect and support only the FODs configurations procured by the Government, including any and all changes to the configurations resulting from testing, vendor parts supply and production line changes. The Contractor shall perform a 100% validation of the RPSTL. The Contractor shall also perform a 100% review and validation of the ETMs to ensure that they meet contract requirements. The Contractor's review of the ETMs shall be hands-on active testing to ensure that the draft ETMs are fully operational so that the Government can evaluate their operation, navigation, and structure. The Contractor shall inform the Government of the planned validation schedule(s), start date, time, and location of validation(s) at least 30 days prior to the start. This will allow the Government time to attend and observe the Contractor's processes. In the event that performing 100% hands-on validation task will result in damage to the equipment, simulation of that task may be acceptable. Decision on simulation of these tasks will be made by the Government on a case-by-case basis.

C.6.5.4 The Government reserves the right to witness the Contractor's validation(s). The Contractor shall maintain validation records, identifying method of validation, showing page mark-ups, corrections required and revalidation records for corrected, re-worked pages. The Government intends to perform a separate verification at either TACOM or a Contractors facility; the Contractor shall support this separate verification. The Contractor shall ensure that approved end item configuration (one each) is transported to the verification facility for the Government verification. The end item shall be delivered prior to delivery of the draft TMs. The Contractor shall provide the necessary support personnel, all parts, expendable materials (oils, coolant, rags, and grease), and special tools/equipment to support a verification. Support personnel shall provide answers to Government questions regarding the verification vehicle and draft TMs. Changes or revisions to work packages shall occur, whenever possible, the same day. In the case of extensive changes, revisions shall occur within 24 hours or, in the event of a weekend or holiday, the next business day.

C.6.5.5 Electronic Technical Manuals (ETMs).

The Contractor shall prepare and deliver ETMs and associated editable, intelligent, linkable electronic files for each set of manuals, LOs, TM-10, TM-23 and TM-23P, in accordance with Exhibit General Publication Requirements, Exhibit Repair Parts and Special Tools List Requirements, applicable requirements matrices and applicable CDRLs.

C.6.5.6. The Contractor shall correct all errors found in the manuals, related RPSTLs and ETMs, and electronic data files resulting from the Contractor's reviews, validations, and Government reviews, tests, and separate verification(s) at no additional cost to the Government.

C.6.5.7. Data Rights.

The Contractor shall furnish copyright releases for all copyrighted data used to develop the technical manual(s) (see DFARS 227.7103-9) to allow "Distribution Statement A: Approved for public release; distribution is unlimited." to be placed on the TM cover(s) and title block page(s). The Contractor shall ensure the Government has the unlimited right to use and distribute the TM(s) and electronic data files delivered under this contract in hardcopy and by means of an electronic media. Refer to DOD FAR Supplement, Warranty of Data; Paragraph 252.246-7001 for warranty of data requirements and invocation stipulation.

C.6.5.8 Supplemental Armor Set Technical Bulletin (TB).

The Contractor shall prepare, validate and deliver a separate Supplemental Armor Set Technical Bulletin to support the use, operation, maintenance, preparation for shipment or storage instructions, parts and installation and removal of the unique Supplemental Armor Set as applied to the vehicle system(s) identified in this contact. The TB shall be prepared and delivered in accordance with Attachment 0010, General Publications Requirements and Attachment 0016, TB Requirements Matrix and CDRL A014.

C.6.5.8.1 The Technical Bulletin shall be prepared in accordance with Exhibit General Publication Requirements and Exhibit Repair Parts and Special Tools List Requirements, MIL-STD 40051-2 and MIL-HDBK 1222C. The MIL-STD and MIL-HDBK are available at http://www.logsa.army.mil/. The Supplemental Armor Set TB shall include Supplemental Armor Set installation and removal instructions, Operators instructions, Field Maintenance and related Repair Parts and Special Tools List (RPSTL) data. The Commodity Command Standard System (CCSS) based RPSTL data shall be included in the TB 5-2410-xxx-13&P as part of the Supporting Information Chapter/work package.

C.6.5.8.2 The Supplemental Armor Set TB shall include an Operator and a separate Field Maintenance Preventive Maintenance Checks and Services (PMCS) and a two level Maintenance Allocation Chart (MAC) supporting the Supplemental Armor Set. The Operator and Unit PMCS and the MAC and all related data shall be tailored and confined to the Supplemental Armor Set as applied to the vehicle(s) identified in this contract and resulting vehicle configuration changes. All other (non Supplemental Armor Set) operator and maintenance instructions and RPSTL data shall be supported by references to the non Supplemental Armor Set vehicle TM series. The Contractor shall be responsible for all changes to the Supplemental Armor Set TB and as applied to the vehicle configuration resulting changes from testing and reviews;

changes shall be at no additional cost to the Government.

C.6.5.8.3 All Supplemental Armor Set instructions in the TB shall be in the form of fully illustrated, detailed start step to end step instructions written in installation order. The tasks, RPSTL, and MAC shall follow this same general order. The Supplemental Armor Set installation instructions shall be written to maximize the efficiency of the installation process. The detailed removal instructions shall be in the same form as the installation instructions. Simply stating reverse the installation instructions or similar is not acceptable. The step by step installation and removal instructions shall be included in the back of the Supplemental Armor Set TB as part of the Supporting Information Chapter.

C.6.5.8.4 All instructions shall contain clear illustration of each step. Instructions shall include required modification dimensions or templates as needed to install the Supplemental Armor Set on the vehicle. Include appropriate Warnings, Cautions regarding welding, drilling or otherwise degrading the integrity of the ROPS/FOPS structure; recertification may be required. Hardware and armor items which could be installed backwards shall be clearly shown and described in the proper orientation. In particular, the proper handling, storage and cleaning of transparent and opaque armor shall be illustrated and described in detail to avoid damage. The use of digital photos and line art are acceptable; the use of color is not acceptable. Multiple views of the after Supplemental Armor Set installation vehicle configuration shall be illustrated in the TB.

C.6.5.8.5 The TB shall be subject to validation and verification in accordance with procedures in Paragraphs C.6.5.3 and C.6.5.4 above.

C.6.5.8.6 The TB Distribution Restriction Statement for the front cover and Title Block Page shall be: Distribution Statement C: Distribution authorized to the U.S. Government agencies and their Contractors only per the CS &CSS Armoring Systems Security Classification Guide effective 6 April 2007. This determination was made on November 4, 2005. Other requests for this document must be referred to PM CE/MHE Attn: SFAE-CSS-FP-C, (Bldg 230) 6501 East 11 Mile Road, Warren, MI 48397.

C.6.5.8.6.1 The Contractor shall destroy all paper copies and electronic files related to the Supplemental Armor Set and/or its related TB upon Government acceptance of final publication deliverables.

C.6.6 Training.

C.6.6.1 Development of Training Materials.

The contractor shall develop four training courses, an operator course and a maintainer course for the system, and an operator course and maintainer course for the armor C kit. The courses shall be developed using the current skills, knowledge and abilities (SKA), of the target audience. The training shall be structured to provide no more than 30% classroom and at least 70% hands-on equipment. The classes will be structured to have a maximum of 12 students.

C.6.6.1.1 Training Course Control Outline.

For each course, the contractor shall develop a separate Training Course Control Outline for the dozer describing the course content (subject, topics, and task), training material, types and duration of instruction, and all resources and support required to conduct training. The Training Course Control Outlines shall contain an introduction, course description data, outline of instruction summary, curriculum outline of instruction, course summary and presentation schedule. They shall be delivered in accordance with CDRL A015.

C.6.6.1.2 Training Materials.

For each course, the contractor shall deliver an Instructor Lesson Plan and a Student Training Guide for the dozer. The training packages for the system shall contain each element of the training course outline fully developed, finalized and delivered. The training materials for the armor C Kit shall cover both operation of the vehicle with the C kit installed, as well as installation, inspection, servicing and maintenance of the C kit. The government can provide sample training materials and outlines at the Start of Work (SOW) meeting. The operator course of instruction for the system shall be developed for 40 hours duration and for the C kit for 24 hours duration. The maintainer course of instruction for the system shall be for 40 hours duration and for the C kit for 40 hours duration.

a. Operator .
The course shall be designed for operators of the dozer, covering complete operation and safety of the vehicle, loading and unloading for transport, complete tie down for shipment, proper use of tools, equipment, and basic issue items (BII), Operator Preventive Maintenance Checks and Services (PMCS) and trouble-shooting. Training shall be consistent with procedures established in the appropriate vehicle technical manual. Performance testing will occur throughout the NET training period while hands-on tasks are being completed. The contractor shall score each student based on their performance. Each student shall complete a written examination at the end of the course.

b. Maintainer.
The course shall be designed for the maintainers of the dozer, and cover minimal operation characteristics, complete field level PMCS, troubleshooting, diagnosis and repair of equipment components to include system unique control systems, engine, fuel, transmission,

axle, braking, electrical, hydraulic, pneumatic, and ancillary systems. The course shall be directed toward new technologies and items not currently in the Army system and different from the current system in the field. Training shall be consistent with procedures established in the appropriate vehicle technical manual.

c. Armor Package Operator.
The course shall be designed for the operators of the dozer. Operator training shall include, but not be limited to, changes in operation of the equipment due to reduction in visibility and weight with the armor kit installed, limitations to system operations, safety restrictions due to the addition of the armor kit, operator maintenance, and operation of the Emergency Egress System.

d. Armor Package Maintainer.
The course shall be designed for the maintainers of the dozer. Maintainer training shall include installation instructions and changes to maintenance procedures due to the installation of the armor kit.

C.6.6.l.2.l Course Material Format/Media & Deliveries.

The contractor may submit materials developed and used for conducting Operator and Maintainer Training for Commercial Customers with Supplemental Data/Information added to meet the Armys Requirements. Training Materials may consist of contractor handbooks, in-house training material, pamphlets, training literature, utility manuals, software manuals, maintenance manuals, logic diagrams, schematics, flow block diagrams, equipment description and functional data, testing procedures, visual aids, and other documents suitable for use in development of training programs. Visual aids may consist of videos, slides, transparencies, wall charts, schematics, illustrations, pictures, drawings, and cutaways of components. No classified information is to be included in the training materials. The contractor shall deliver all course control documents and training materials in an editable commercial electronic format: (Microsoft Word for documents and PowerPoint for presentations). Materials submitted must not conflict with the content of the vehicle technical manuals. Training materials shall be developed and delivered in accordance with CDRL A016.

C.6.6.l.2.2 Automated Systems Approach to Training (ASAT) Course Material Format/Media and Deliveries.

The contractor shall input the final approved operator and maintenance NET instructor Lesson Plans into the Automated Systems Approach to Training (ASAT) database in accordance with CDRL A016.

C.6.6.2 Conduct of Training Programs.

C.6.6.2.l Instructor and Key Personnel Training (I&KPT).

The contractor shall conduct a training class for both operator courses and both maintainer courses using training materials developed under this contract, at a contractor location. Purpose of the classes is to verify training materials developed for NET. Conduct of training shall include movement of dirt. The contractor shall provide vehicles, armor kit, equipment, facilities, tools (special and common) and replacement parts consumed during training in accordance with CDRL A016.

C.6.6.2.2 New Equipment Training (NET).

The contractor shall conduct NET classes to support unit handoff. The contractor shall conduct classes at training locations specified by the Government under the terms of F.5 and F.6. Training dates will be determined by the Government and provided to the contractor not later than 30 days prior to the beginning of each class. For NET classes in the field, the contractor will use the fielded vehicle. The contractor shall conduct training with the approved training materials developed under this contract. A maximum of 12 students will attend each class.

For OCONUS (contingency) training, there is no limitation on which days during the week or which hours during the day training will be held. The duration of a training class will be no more than 8 hours per day. Each delivery order will specify the training dates, locations, and number of classes. The contractor shall provide a copy of the approved training materials to each student and the unit training officer.

C.6.6.2.2.l. NET Operator.

The course shall be designed for operators of the FOD, covering complete operation and safety of the dozers, loading and unloading on transport, complete tie down for shipment, proper use of tools, equipment, and basic issue items (BII), and Operator Preventive Maintenance Checks and Services (PMCS) and operator trouble-shooting. Instruction shall consist of no more than approximately 30% classroom and no less than 70% hands-on. Training shall be consistent with procedures established in the appropriate vehicle technical manual.

C.6.6.2.2.2. NET Maintainer.

The course shall be designed for the maintainers of the FOD, and cover minimal operation characteristics, in-depth PMCSI

troubleshooting, diagnosis and repair of system components to include Contractor/system unique control systems, engine, fuel, transmission, electrical, hydraulic, pneumatic, and ancillary systems. Instruction shall consist of no more than approximately 30% classroom and no less than 70% hands-on. The course shall be directed toward new technologies and items not currently in the Army system and unique to current dozers. Training shall be consistent with procedures established in the appropriate dozer technical manual.

C.6.6.2.2.3. T-5/D6K Light Dozer & T-9/D7RII Medium Dozer Training Aids.

The contractor shall provide two battery chargers, ten sets of special tools necessary for the disassembly and assembly of the D7RII 3176 diesel engine, and 50 sets of gaskets and parts necessary for the disassembly and assembly of the D7RII 3176 diesel engine and shall deliver ten D7RII 3176 diesel engine training aids, five D7RII 3176 diesel engine start carts, and two D7RII planetary transmission motorized cut-away training aids. The contractor shall deliver one D7RII final drive and brake assembly motorized cut-away training aid, two D6K cut-away variable displacement pump training aids, two D6K cut-away variable displacement motor training aids, two D7RII 3176 engine cut-away EDM training aids, three D7RII 3176 engine cut-away fuel-injector training aids, one D7RII 3176 engine cut-away turbo with wastegate training aid, and two D7RII cut-away torque converter/divider training aids. The contractor shall deliver, install, and set-up all training aids in this section C.6.6.6.2.2.3 at Fort Leonard Wood, MO. The contractor shall provide one training session on the proper care and operation for all training aids required in this section C.6.6.2.2.3. See attachment 0033.

C.6.6.2.3 Student Training Administration.

The contractor shall prepare and submit the following for each NET class conducted. The data shall be submitted in accordance with CDRL A017.

a. On the first day of each training class the contractor shall submit a list of students in attendance to the government.

b. At the end of the operator class, the contractor shall provide the results of the operator test for each student to the unit training officer

c. The government will provide the training certificate master file for the contractor to administer. At the end of the class, the contractor shall present each student with a Certificate of Training. The contractor may also administer a corporate certificate if desired.

d. At the end of the class, each student will complete a class critique. The government will provide a sample critique sheet and the contractor shall administer them. Within ten days after completion of the class, the contractor shall submit the completed critiques to the government.

e. Within ten days after completion of the class, the contractor shall submit a student roster and the results of both the student tests to the government. The roster shall include the name of the class, start and end date, instructor(s) name and signature, location of the class, student name, military rank (if military), military occupational skill (MOS), home station address, last four number of the students social security, students Army Knowledge Online (AKO) email address, record of daily attendance for each student, and instructors notes.

C.6.6.3 Training for Test Personnel for FAT (See Section E).

The Contractor shall provide one day of training to support Government FAT at Aberdeen Proving Ground. Training shall include proper operating procedures, equipment and instrument familiarization, safety precautions, operator and maintainer Preventive Maintenance Checks and Services (PMCS), maintenance tasks, and all necessary materials and equipment required to support testing of the FOD. A commercial operator's manual, and if need be, training materials shall also be provided to supplement training.

C. 6.7 Packaging Data Development.

The Contractor shall develop and provide LMI-packaging data for all provisioned TACOM managed (AKZ) "P" coded items (other than "PR" or "PZ"). Contractor shall provide new or corrected LMI-packaging data for any revision created by a Configuration change. For each packaging data submitted, Contractor shall include verification support data, which shall provide the Government a reasonable means to determine the adequacy of the Contractor's prepared packaging analysis and data submittal. This shall include item drawings and if applicable, copies of Material Safety Data Sheets (MSDS) for Hazardous Material items. Excluded from packaging data development are items with existing packaging data already on file within the TACOM Packaging File "PACQ", FEDLOG, FLIS, and items assigned a CAGE code of 1T416, 21450, 80204, 96906, 10060, 24617, 80205, 99237, 80244, 81343, 81348, 81349, 81352, and 88044.

C.6.7.1 Packaging/Logistics Data Entry.

The Contractor shall develop, maintain and update packaging data IAW Attachment 0017 (LMI Packaging Data Products), Attachment 0018 (LMI Packaging Data Transaction Format), and CDRL A018. LMI packaging data is required IAW MIL-PRF-49506 and will provide for the entry of information to the computer data base known as the TACOM Packaging Data File. The Packaging Data Entry shall be in an ASCII delimited

text format using commas as delimiters. Quotation marks may be used as text qualifiers but are not required.

NOTE: At Contractors request, the Government will provide MS ACCESS application to Contractor that provides data formatting and edit features for coding of packaging data products IAW MIL-STD-2073-1D.)

C.6.7.2 Special Packaging Instructions (SPI).

The Contractor shall develop a SPI for each repairable TACOM managed AKZ "P" coded item including items considered as National Maintenance Work Requirement (NMWR) candidates. Development of a SPI for engines, transmissions, differentials, transfers, final drives, drive axles, and similar assemblies shall include requirements involving MIL-PRF-11264 reusable containers for usage in shipment and storage. Packaging processes and materials shall be described for cleaning, drying, preserving, unit, intermediate (as applicable), and exterior packing, marking, and unitization. Figures and narrative data shall be developed to describe the form, fit, and function of packaging in sufficient detail for reproduction. The format and content of SPI shall be IAW DI-PACK-80121B and CDRL A019.

C.6.7.3 Validation Testing of Preservation Processing and Packaging.

Validation testing of SPI candidate shall be in accordance with ASTM D 4169. "Standard Practice for Performance Testing of Shipping Containers and Systems" and see: Acceptance Criteria 1, Distribution Cycle 18, and Assurrance Level I for unique components identified as fragile and/or sensitive and not previously tested. Performance Testing is limited to Test Schedule A (Paragraph A1.2 on Pages 10-11) and Schedule F (Paragraph A1.6 on Page 11). Replicate testing (Paragraph 5 on Page 2) and climatic conditioning (Paragraph 6 on Page 2) are not required. Items with previously approved documented test results may be exempt from validation testing. Test results shall be submitted IAW CDRL A019.

C.6.7.4 C-Kit Packaging Development

Contractor shall develop a SPI for each C-Kit armored panel(s) describing the packaging process. The SPI shall provide required narrative instruction, illustrations, prevention of corrosion and deterioration, first in last out loading procedures and blocking and bracing applications. SPI shall include procedures for stowing cab components removed from the vehicle utilizing same container. Contractor shall submit SPI and validation test results IAW CDRL A019.

C.7 Transportability Report.

The Contractor shall submit a Transportability Report in accordance with CDRL A020 that includes data on recommended procedures for configuring, positioning, and securing the vehicles for transport by trailer, air, and rail car, slinging procedures for lifting the vehicles, and procedures, man-hours and all tools required for any disassembly and re-assembly when transported by highway, rail, marine and air.

C.8 Safety Engineering and Health Hazards.

C.8.l Safety Engineering Principles and Program.

The Contractor shall follow good safety engineering practices as established by the industry consensus standards and other pertinent regulations. The Contractor shall maintain a system safety program in accordance with the Safety System Program Guide, Attachment 0019. The Contractor shall establish a system safety organization or function with lines of communication between system safety and other functional elements of the program to include overall management. The system safety organization should have the authority, or shall have the means, to acquire the authority for resolution of identified hazards.

C.8.2 Safety Assessment Report (SAR).

C.8.2.1 As a result of system safety analyses, health hazard evaluations such as the Health Hazard Assessment Report, and any independent testing, the Contractor shall provide an updated safety and health hazard assessment. The safety and health hazard assessment shall identify all safety and health features of the hardware, system design and inherent hazards and shall establish special procedures and/or precautions to be observed by Government test agencies and system users.

C.8.2.2 The Contractor shall prepare an updated Safety Assessment Report in accordance with CDRL A021 and this paragraph. The Contractor shall identify all new Safety and Health Hazards associated with the system and incorporate them into the SAR. In preparing the hazard list portion of the Safety Assessment Report, the Contractor shall provide a description and effects of each potential or actual safety and health hazard of the vehicle as well as when the hazard may be expected under normal or unusual operating or maintenance conditions. Identify actions taken to mitigate the risk associated with the hazards and categorize these risks before and after mitigation in accordance with the System Safety Program Guide, Attachment 0019. Risks must be identified by hazard severity, hazard probability and risk level. Mitigation actions include recommended engineering controls, equipment, and/or protective procedures to reduce the associated risk. Include in the SAR copies of the Material Safety Data Sheets (MSDS) for all hazardous materials incorporated into the system. The final updated SAR is subject to TACOM approval. Examples of hazards to be included in this report, but not limited to, are compliance issues with regulatory organizations, confined spaces, fire prevention issues, ergonomic hazards, sharp edges/moving parts,

physical hazards (heat or cold stress, acoustical energy, etc.), chemical hazards (flammables, corrosives, carcinogens, etc.), toxic fumes (exhaust emission hazards), electrical issues, and noise.

C.8.2.3 The Contractor shall include the hazards resulting from the application of the Armor Solution in the SAR. Hazards that have severe consequences and cannot be eliminated by design changes shall be clearly identified. An assessment of vehicle stability and an estimation of operational limitations resulting from the addition of the Armor Solution shall be included in the report.

C.9 Hazardous Materials Management.

The Contractor shall not use hazardous materials in accordance with Section 3.4.4 of the PD.

The Contractor shall prepare a Hazardous Material Management Report which, at a minimum, shall identify all hazardous materials required for system production, and sustainment, including the parts/process that requires them. This report should be prepared in accordance with National Aerospace Standard 411, Section 4.4.1 per DI-MISC-81397, CDRL A022.

C.10 Field Service Representatives-Technical Service Support.

The Contractor shall provide Field Service Representatives who will provide technical service support (both CONUS and OCONUS), during contingency and non-contingency operations. The Contractor shall provide the man-days of service specified in the delivery order. The effort will include tasks such as the following: investigation and diagnosis of problems or issues in the field, and other locations related to vehicle performance, maintenance, and training. The Contracting Officer shall designate the times and locations of the service to be performed, but will not supervise or otherwise direct the specific activities. The Contracting Officer or authorized representative shall notify the Contractor of FSR(s) travel requirements at least 10 days in advance for CONUS or 20 days in advance for OCONUS travel. Instructions and established itineraries will be provided as necessary.

C.10.l Field Service Representative (FSR).

The Contractor shall provide FSRs who are thoroughly experienced and qualified to advise and make recommendations, and to orient, and instruct key Government personnel with respect to operation, maintenance, and repair of the FODs and their components.

C.10.2 FSR Personal Data.

The Contractor shall make available personal data related to the FSRs including documentary evidence such as birth certification and such evidence as is requested by the local Government installation or area in which services are to be performed. The Contractor shall request approval for each FSR and include a statement of qualification for each representative. Government approval shall be limited to granting or denying security clearance for the person named. The Contractor shall contact local personnel and comply with local procedures. The local personnel will be identified in the delivery order.

C.10.3 Man-Days.

The Contractor shall price man-days of service for locations in both CONUS and OCONUS. The Government reserves the right to change the number of days of services furnished to the extent necessary to conform to requirements and shall be obligated to pay for only actual services used. Each change in quantity shall be at the established man-day rate.

(1) The man-day rate does not include travel costs (airfare, local car rental, lodging, meals, and incidental expenses) of the FSR while performing the services. The travel costs will be negotiated prior to the issuance of the delivery order, on a firm-fixed-price basis, and not to exceed the Joint Travel Regulation.

(2) A man-day is 8 hours. The representative is to work no more than 8 hours per day, 40 hours per week, unless otherwise negotiated. A man-day of service includes any period during which the representative is delayed or prevented from performing any task, only if the delay or non-performance is solely the Government's fault. Man-days of service include travel time for initial travel from Contractor's facility to site of work, travel between sites of work, and return travel to Contractor's facility. It shall also include any time that the FSR spends preparing required written reports at the work site which can be verified by the Government.

(3) Saturday/Sunday. When work is not performed on a Saturday/Sunday, and the representative is on site, a man-day shall be charged at the Saturday/Sunday man-day per diem rate only.

(4) Holidays. The Government will pay for federal holidays in addition to the actual days worked at the man-day rate established. The Government is not responsible for vacation, other holidays or sick leave pay.

(5) Emergency Leave. The Government is not responsible for any emergency leave that the Contractor may grant to the FSR while performing work under this contract. The Government is only responsible for actual days worked by any qualified Contractor representative, whether or not the assignment is completed by the same representative. The negotiated price for travel costs will include only one complete round-trip transportation and travel costs between sites of work per assignment.

C.10.4 Contract Field Service Report/Field Service Representative (FSR) Reports.

Each FSR shall prepare and deliver via e-mail a report in accordance with CDRL A023 following completion of each assignment covering their activities.

C.11 Warranty.

C.11.1 Requirement for Commercial Warranty.

The Contractor shall provide its standard commercial warranty with all applicable pass through warranties. The warranty will be incorporated in the contract.

C.l1.2 Warranty Performance Report.

The Contractor shall submit a report reflecting all of the warranty claims processed on each vehicle within the appropriate reporting period. In addition to the data required by the Data Item Description (DID), the report shall include the number of operating hours on the vehicle at the time of fault. The report shall be submitted in accordance with CDRL A024. This section shall exclude all United States Marine Corp (USMC) Vehicles.

C.11.3 United States Marine Corp(USMC) Extended Warranty.

The United States Marine Corps (USMC) Extended Warranty for the T-5/D6K Type I Light Dozer.

The contractor shall provide Extended Warranties for the T-5/D6K Type I Light Dozer as outlined below:

T-5/D6K Type I Light Dozer Extended Warranty: The contractor shall provide a four-year or 1,000 hour vehicle use extended warranty, whichever occurs first, for all components of the T-5/D6K Type I Light Dozer that commences on the date of handoff to the receiving unit. The extended warranty shall include all costs associated with parts, parts support, packaging, freight, handling, diagnostic time, labor, cleaning, local Caterpillar dealer mileage, and customer support associated with providing services to correct defects and/or making warrantable repairs. Items covered under the extended warranty also exclude consumable items and wear items except hoses and belts. Further, the extended warranty coverage includes items found to have defects or failures, and items identified in manufacturers recalls. The contractor or its designated dealer shall be the point of contact for extended warranty actions associated with the T-5/D6K Type I Light Dozer.

Warranty Management: The contractor shall use the Product Manager Engineering System (PM ES) Warranty Service and Support Claims Tool (WSSCT) to manage all warranty claims under this contract pertaining to the T-5/D6K Type I Light Dozer. The contractor shall:

a.Establish an account in the WSSCT using the website link below. Local vendors, whom conduct warranty repairs and repair consult, shall also establish accounts in the WSSCT to support the T-5/D6K Type I Light Dozer at URL:
http://www.marcorsyscom.usmc.mil/sites/warranty/

b.Accept or reject all claims within 3 working days of claim being initiated.

c.Provide status to the User, Warranty Coordinator, and Project Officer using a combination of the Comments Log, located within WSSCT, and email on all warranty claims.

d.Order and ship all parts required for warranty repairs.

e.Perform repairs on all claims under warranty. The contractor shall adhere to the following repair cycle times:
Continental United States (CONUS): 7 Working Days Parts and repair.
Outside Continental United States (OCONUS): 14 Working Days Parts and repair.
Contingency Operations: 14 Working Days Parts only.

Contractor will notify the USMC if repairs will take longer than the above stated number of days to repair, due to long lead repair parts.

f.Provide labor hours and the following cost data associated to the warranty services:
Labor
Time and travel
Parts
Shipping and other

Warranty Execution: The contractor shall provide a manufacturers warranty for all components of the T-5/D6K Type I Light Dozer, that commences on the date of handoff to the USMCs receiving unit. The warranty shall encompass comprehensive worldwide support inclusive of all costs associated to parts, labor, time, and travel as noted under Attachment 0033, US Army 60 month/ 1000 hour Extended WArranty

Terms and Exclusions for USMC. A copy of the Warranty Agreement will be provided to the USMC and Army at contract award. Each warranted system and sub-system of the T-5/D6K Type I Light Dozer shall be indexed and identified by serial number, model or part number, and date of acceptance by the using unit. The warranty period shall not commence until all assemblies required to make the T-5/D6K Type I Light Dozer operational are received by the USMC. All items under warranty will be loaded to the WSSCT. The contractor shall not perform on-site warranty repairs in contingency operations; however, they shall provide parts support. Contractors shall conduct repairs on-site at all non-contingency areas. The user may request to conduct repairs and only require the contractor to provide the warranted parts. The contractor shall not void the warranty if the user conducts repairs. Parts may be shipped by air, or to a designated CONUS float location, as determined appropriate by the USMC.

The contractor may be required to ship parts directly to overseas locations, at the discretion of the USMC. All OCONUS and Aerial Port Of Entry (APOE) / Fleet Post Office (FPO) shipping addresses should be shipped using United States Postal Service (USPS) and will require the contractor to submit a Document Number Request (DNR) to the USMC. The warranty cost shall be all-inclusive to include costs such as labor, time and travel, parts, and shipping.

The contractor shall provide a provisioning parts list and updated LSA036 in 1388.2B format to account for additional parts required to support USMC configured T-5/D6K Type I Light Dozers. Contractor shall also provide any Engineer Drawings for Provisioning (EDFP) for parts needing NSN assignment in accordance with CDRL C001.

C.12 Crew Protection Kit (CPK).

C.12.1 Reserved.

C.12.2 Access to Classified Information.

The Contractor (or their armor subContractor) is required to have access to classified information. The Contractor (or their armor subContractor) shall have a SECRET facility clearance.

C.12.3 Ballistic Test Meetings.

The Government will host a pre and post ballistic test meeting at Aberdeen Proving Ground, if required.

C.12.4 Armor Kits.

The Contractor shall provide FODs with an A-kit and a C-kit as described below and in Section 3.5.6 of the PD. No special tools are to be included in any of the kits.

C.12.4.1 A-Kit.

The A kit shall consist of a non-removable portion of integral components, providing armor protection to those portions of the cab, which by basis of design would make it difficult or impossible for upgrading to full crew protection. The dozers, with the A kit, shall meet all requirements stated in this Purchase Description (PD), without degradation.

C.12.4.2 The FODs production configuration should include any mounting provisions that would be required for the installation of the armor kit.

C.12.4.3 Reserved.

C.12.4.4 C-Kit.

The C-kit consists of a complete interchangeable armored cab.

*** END OF NARRATIVE C0001 ***

Name of Offeror or Contractor: CATERPILLAR INC.

SECTION J - LIST OF ATTACHMENTS

List of Addenda	Title	Date	Number of Pages	Transmitted By
Attachment 0033	TRAINING AIDS KIT - PARTS WORKSHEET	13-AUG-2014	001	EMAIL

PART/WORKSHEET TAB NUMBER	DESCRIPTION - DOZER TRAINING AIDS	QTY
22	D7RII 3176 Engine on Stationary Stand	10
23	Start Cart	5
25	Battery Charger and Cables	2
26	Commissioning, Delivery and Training	1
4	D7R Planetary Transmission - Motorized	2
10	D6K Variable Displacement Pump	2
11	D6K Variable Displacement Motor	2
3	D7RII Final Drive and Brake - Motorized	1
9	D7RII 3176 Engine ECM	2
12	D7RII 3176 Engine - Fuel Injector	3
13	D7RII 3176 Engine - Turbo With Wastegate	1
18	D7RII Torque Converter/Divider	2
D&A Tool List	D7RII Engine Assembly/Disassembly Tools	10
D&A Parts	D7RII Engine Assembly/Disassembly Parts	50