

**AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT**

1. Contract ID Code  
Firm Fixed Price

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2. Amendment/Modification No. P00015	3. Effective Date 2014FEB07	4. Requisition/Purchase Req No. SEE SCHEDULE	5. Project No. (If applicable)
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6. Issued By U.S. ARMY CONTRACTING COMMAND MICHAEL YOUNG WARREN, MICHIGAN 48397-5000 HTTP://CONTRACTING.TACOM.ARMY.MIL  EMAIL: MICHAEL.YOUNG50@US.ARMY.MIL	Code W56HZV	7. Administered By (If other than Item 6) DCMA DALLAS 600 N PEARL STREET SUITE 1630 DALLAS TX 75201-2843	Code S4402A
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8. Name And Address Of Contractor (No., Street, City, County, State and Zip Code)  KALMAR RT CENTER LLC 103 GUADALUPE DR CIBOLO, TX 78108-3144	<input type="checkbox"/>	9A. Amendment Of Solicitation No.
	<input type="checkbox"/>	9B. Dated (See Item 11)
	<input checked="" type="checkbox"/>	10A. Modification Of Contract/Order No. W56HZV-11-D-VK03
	<input type="checkbox"/>	10B. Dated (See Item 13) 2011MAR17
Code INWY2	Facility Code	

**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.**

<input type="checkbox"/>	A. This Change Order is Issued Pursuant To: The Contract/Order No. In Item 10A.	The Changes Set Forth In Item 14 Are Made In
<input type="checkbox"/>	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).	
<input checked="" type="checkbox"/>	C. This Supplemental Agreement Is Entered Into Pursuant To Authority Of:	43.103(a)
<input type="checkbox"/>	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) KEITH W. AHLSTROM KEITH.AHLSTROM@US.ARMY.MIL (586)282-0538		
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 2014FEB07

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## SECTION A - SUPPLEMENTAL INFORMATION

Buyer Name: MICHAEL YOUNG  
Buyer Office Symbol/Telephone Number: CCTA-ADEC/(586)282-3540  
Type of Contract: Firm Fixed Price  
Kind of Contract: Supply Contracts and Priced Orders  
Type of Business: Large Business Performing in U.S.  
Surveillance Criticality Designator: B  
Contract Expiration Date: 2016SEP05

\*\*\* End of Narrative A0000 \*\*\*

CONTRACT: W56HZV-11-D-VK03  
MODIFICATION: P00015  
AMOUNT OF ACTION: \$0.00

1. This action is being issued as a bilateral action under contract W56HZV-11-D-VK03.
2. The purpose of Modification P00015 is to clarify the delivery of Special Tools Kits under this contract.
3. As a result of this modification, Section C is changed as follows:

FROM: C.1.1.4 Special Tools Kit. The Contractor shall provide a Special Tools Kit that contains all special tools for the LCRTF approved by the Government. The kit shall be given a unique part number and CAGE code that lists all tools within the kit. The number of special tool kits for each unit fielding shall be provided by the Government.

TO: C.1.1.4 Special Tools Kit. The Contractor shall provide a Special Tools Kit that contains all special tools for the LCRTF approved by the Government. The kit shall be given a unique part number and CAGE code that lists all tools within the kit. Special Tools Kits shall be delivered with every third LCRTF shipped, unless otherwise specified by the Government.

4. This change shall be effective from date of modification award.
5. P00015 is a no cost modification.
6. Except as specified above, all other terms and conditions remain unchanged and in full force and effect.

\*\*\* END OF NARRATIVE A0014 \*\*\*

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## SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

## C.1 HARDWARE DELIVERY

C.1.1 End Items. The Contractor shall deliver a single model Light Capability Rough Terrain Forklift (LCRTF) that meets all the technical requirements of the Purchase Description (PD) No. ATPD-2392, Light Capability Rough Terrain Forklift (LCRTF) 4,000\\_6,000 Pound Capacity at 24 Inch Load Center (Attachment 001). As a note, Section 4, Tables I and III have been amended in accordance with Attachment 023 Purchase Description Changes; which supersede the Tables in ATPD-2392B. Delivery Orders will specify the quantity, delivery dates, destinations, packaging requirements and paint colors.

C.1.1.1 Basic Issue Items (BII). The Contractor shall identify and provide BII in accordance with ATPD-2392 for each LCRTF. The Contractor shall list BII by National Stock Number (NSN) in a separate appendix to the operator's manual (see paragraph C.5.5.2.1). The Contractor shall over-pack (boxed and strapped to the vehicle) a complete set of BII with each vehicle.

C.1.1.2 Initial Service Package (ISP). The Contractor shall provide an ISP for each LCRTF. The Contractor shall over-pack the list and the components of the ISP with each vehicle IAW the packaging instructions. 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 (if and when assigned). The Contractor shall over-pack (boxed and strapped to the vehicle) a complete ISP with each vehicle.

C.1.1.3 Authorized Stockage List (ASL) Package. The Contractor shall provide an ASL Package for each designated LCRTF. The ASL Package shall be comprised of parts that are high-demand, have a production lead time of at least 8 months, or are mission essential. The ASL Package is expected to support one vehicle for 90 days of operation. The Contractor shall mark each item with nomenclature, part number and NSN (if and when assigned).

C.1.1.4 Special Tools Kit. The Contractor shall provide a Special Tools Kit that contains all special tools for the LCRTF approved by the Government. The kit shall be given a unique part number and CAGE code that lists all tools within the kit. Special Tools Kits shall be delivered with every third LCRTF shipped, unless otherwise specified by the Government.

C.1.1.5 USMC-Unique Components. The USMC variant of the LCRTF shall consist of components that have been tested and approved for the application being offered. The system shall consist of the following:

- a. Load Limiting Moment Indicator (LLMI) System
- b. Pulse Tech 24-volt Solargizer
- c. Environmental Kit
- d. Quick Disconnect Kit

C.1.1.5.1 LLMI System. The USMC LCRTF shall be equipped with an LLMI System. All exterior LLMI components shall be water-resistant.

C.1.1.5.1.1 Automatic Boom Cutoff. The LLMI System shall provide an automatic boom cutoff when the boom is overloaded.

C.1.1.5.1.2 Visual Alert. The LCRTF shall be equipped with a operator cab LLMI System display that provides a visual alert to the operator when the boom has been overloaded.

C.1.1.5.1.3 Override. The LLMI System shall include an override switch that enables the operator to resume boom operation.

C.1.1.5.2 Pulse Tech 24-volt Solargizer. The USMC LCRTF shall be equipped with a Pulse Tech 24-volt Solargizer.

C.1.1.5.3 Environmental Kit. The USMC LCRTF shall be equipped with an environmental kit that minimizes potential petroleum, oil and lubricant (POL) spills. The LCRTF shall be configured to facilitate controlled drainage of hydraulic and engine oils. Ball and check valves, or equivalent, shall be included within the hydraulic and engine oil systems to minimize fluid spillage in the event of a line rupture or leak.

C.1.1.5.4 Quick Disconnect Kit. The USMC LCRTF will be equipped with quick disconnects to facilitate easy removal of the operator cab for maintenance and/or replacement. To facilitate the removal and installation of the operator cab, quick disconnect fittings shall be provided for all connections between the base vehicle and the cab. Quick disconnects shall be provided for all electrical, refrigerant, and hydraulic connections. At a minimum, hydraulic lines shall be equipped with shutoff valves so as not to require draining of fluids.

## C.2 DATA

C.2.1 Data Requirements. The Contractor shall deliver all data in English in accordance with the requirements established in Exhibit A, Contract Data Requirements List (DD Form 1423). All data delivered under this contract shall be submitted electronically via CD-ROM, electronic mail, or posted to an Army web site in a Microsoft Office compatible format.

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C.2.2 Responsibility for Data. The Contractor shall submit, at no cost to the Government, revisions to all contractual data deliverables affected by Contractor-initiated configuration changes within 90 calendar days of making the change.

**C.3 MEETINGS AND REVIEWS**

C.3.1 General. 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. For all meetings, the Contractor will develop an agenda and coordinate it with the Government no later than 3 days prior to each meeting. Meetings will be held at either the Contractors or Government facilities, at the Governments discretion. 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 LCRTF 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/conference and deliver in accordance with CDRL A001.

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

C.3.2.1 Start-of-Work (SOW) Meeting. Within 30 days of contract award, a Start of Work meeting will be held at TACOM and may last up to two days. The Contractor shall present its approach to manage and develop engineering and logistics products and services to include a detailed milestone schedule with all logistics, engineering and test events. The plan shall identify dates for all program events and data deliverables. The plan and schedules will be reviewed by the Government and managed by the Contractor for the life of the contract. The plan and schedules will be reviewed at each Program Status Review (PSR) or applicable In-Process Review (IPR), the Integrated Logistics Schedule (ILS) will be reviewed at each Supportability Integrated Product Team (SIPT) or applicable IPR for the life of the contract. The SOW meeting will focus on reviewing the following.

- a. Contract terms and conditions
- b. Data requirements
- c. Required specifications
- d. Test requirements and schedules
- e. Program Schedule to include all Engineering and Integrated Logistics Support (ILS) program events and data deliverables
- f. Logistics products and data development guidance

C.3.2.2 Program Status Reviews (PSRs). Program Status Reviews (PSRs) shall 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, test, quality assurance and data deliverable status. The PSR will be run by the Contractor and held at the Detroit Arsenal, in Warren, MI.

C.3.2.3 In-Process Reviews (IPRs). The Government may request up to four IPRs a year at the Contractors facility to review engineering and logistics issues and reach consensus for resolution.

C.3.2.4 Supportability Integrated Product Team meetings. The Contractor shall participate in quarterly Supportability Integrated Product Team meetings. The purpose of these meetings is to cover the entire Logistics Support Package development and assess the ten elements of ILS (see paragraph C.5.1). It is anticipated that these meetings will be held following the PSRs.

C.3.2.5 Provisioning Conferences. The Contractor shall host a series of provisioning conferences, not to exceed 5 business days each for each incremental review. Provisioning data presented for review shall include complete assemblies. The Contractor shall provide at least two Internet connections (Ethernet/wireless) for use by Government attendees. The Contractor shall provide advanced copies of the PPL and EDFP data to each conference attendee per CDRL A020 and CDRL A021.

C.3.2.6 Publications Start-of-Work (SOW) Meeting. Within 30 days after contract award, a Publications SOW meeting will be held by the Government with the Contractor. This meeting will be a sub-meeting of the overall contract SOW meeting which may include a stand-alone meeting. The purpose of this meeting is to review publications contract requirements, establish lines of communications, answer all questions, and develop a publications schedule based on the requirements of the program and the contract.

C.3.2.7 Publications In Process Reviews. The Contractor shall support a minimum of three IPRs by providing samples of work accomplished to date, answering questions about publications work processes, providing records of QA reviews, and responding to Government comments regarding publications processes or work samples. If Additional IPRs are required, they will be at no cost to the Government if they are necessary due to poor contractor quality.

C.3.2.8 Maintenance Analysis Review. The Contractor shall facilitate a joint Government-Contractor maintenance review at the Contractors (or logistics sub-Contractors) facility to review the maintenance planning and analysis results in accordance with the schedule agreed to at the Start of Work Meeting. Maintenance reviews shall be held using the following planning schedule:

- a. An Initial Maintenance Review shall be held within 180 days of contract award.
- b. Intermediate Maintenance Reviews to be held approximately 45 days after delivery of ILS vehicle and upon completion of the Government First Article Test/Production Verification Test.

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c. A Final Maintenance Review to be held at the conclusion of the Logistics Demonstration. The Contractor shall update the Maintenance Analysis for the life of the contract and provide it for Government review if requested.

C.3.2.9 Training Meetings/In-Process Reviews (IPRs). The Government and Contractor shall hold joint IPRs. At each IPR, the Contractor shall provide a comprehensive review of the status of training development and issues requiring Government intervention. The Contractor shall make available at each IPR all training documentation for Government review.

C.4 SYSTEM ENGINEERING

C.4.1 General. The Contractor shall establish and maintain a systems engineering program to manage and control the Contractors design and technical processes to ensure the LCRTFs delivered to the Government fully satisfy the technical requirements of ATPD-2392 and this contract within the negotiated price and schedule.

C.4.2 Technical Reviews. The Contractor shall participate in the following technical reviews:

C.4.2.1 Design Reviews. Design Reviews will be integrated with the PSR. The Contractor shall present current system engineering issues and proposed solutions as an integral part of each Program Status Review (see paragraph C.3.2.2).

C.4.2.1.1 User Jury. The Contractor shall make available a pre-production LCRTF at the Contractors facility for a one-day examination by Government technical and operational subject matter experts NLT 45 DAC. The purpose of this examination is to provide a means to obtain constructive feedback from the customer to beneficially influence the LCRTF design. Observations and preliminary recommendations will be discussed between the Government and Contractor team at the end of the examination. Within 30 calendar days following the user jury examination, recommendations for design changes will be formally provided to the Contractor by the PCO. The PCO will negotiate any contract modifications and price adjustments with the Contractor necessary to implement the recommendations.

C.4.2.2 Test Readiness Review (TRR). The Contractor shall host a Test Readiness Review (TRR) no later than 15 days prior to the planned start of Contractor Production Verification Test (PVT-C). The TRR is a multi-disciplined technical review to assess test objectives, test methods and procedures, scope of tests, and safety and to confirm that required test resources have been properly identified and coordinated to support planned tests. The TRR will last one day and be held at the Contractors facility. Criteria for a successful TRR and to receive approval to proceed to test shall consist of the following:

- a. Approved contractor test plans (IAW C.4.6.2);
- b. Completed identification and coordination of required test resources;
- c. Previous component, subsystem, and system test results that form a satisfactory basis for proceeding into planned tests IAW the PD; and
- d. Identified risk level acceptable to the program leadership.

C.4.2.2.1 TRR Approval. After the TRR, the Contractor shall obtain authorization from the PCO prior to initiating PVT-C.

C.4.3 System Safety

C.4.3.1 Safety Engineering. The Contractor shall apply the standard safety practices as described in MIL-STD-882D, section 4 General Requirements and shall manage the engineering design process to ensure the safety-related requirements specified in ATPD-2392 are met.

C.4.3.2 Safety Assessment Report (SAR). The Contractor shall prepare a SAR in accordance with CDRL A002 and Attachment 003 (System Safety Program Guide). The Contractor shall identify Health Hazards associated with the system and incorporate them into the SAR. In preparing the health hazard portion of the SAR, the Contractor shall provide a description and discussion of each potential or actual health hazard inherent to the operation, maintenance, transport, or use of materiel that can cause death, injury, acute or chronic illness, disability, or reduced job performance of personnel by exposure to physiological stresses. The Contractor shall include classification of severity and probability of occurrence, and when the hazards may be expected under normal or unusual operating or maintenance conditions. Include in the SAR, copies of Material Safety Data Sheets (MSDS) for all hazardous materials incorporated into the system. Identify all data sources for the report and identify hazard severity, hazard probability and risk for each hazard.

C.4.4 Environmental Management

C.4.4.1 Hazardous Materials. The Contractor shall limit use of any hazardous materials in accordance with the ATPD-2392.

C.4.4.2 Hazardous Materials Management Program (HMMP) Report. The Contractor shall prepare a HMMP Report that identifies all hazardous materials required for system production and sustainment, including the parts/process that requires them. This report shall be prepared in accordance with CDRL A003.

C.4.5 Transportability. The Contractor shall use the interface design criteria in MIL-STD-1366E, as applicable, to meet the specific LCRTF transportability performance requirements of ATPD-2392. The Contractor shall prepare a Transportability Report in accordance with

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CDRL A004.

C.4.6 System Verification

C.4.6.1 Testing. Production Verification Test (PVT) shall consist of both a Contractor part (PVT-C) and a Government part (PVT-A). These tests will be conducted in accordance with Section E & Section 4 of the PD. For contractual purposes, PVT-C and PVT-A are equivalent to First Article Test as governed by FAR Clauses 52.209-3 and 52.209-4, respectively. FAT approval, per FAR clauses 52.209-3 and 52.209-4, requires successful completion of both Contractor and Government testing. The Contractor's tests and inspections shall be conducted in accordance with Section 4, Table I of the PD, Section E, and FAR clause 52.209-3. The Government's tests and inspections will be conducted in accordance with Section 4, Table II of the PD, Section E, and FAR 52.209-4. The Contractor shall ship the test units from its facility to the Governments test site and back at its own expense.

C.4.6.2 PVT-C Test Plan. The Contractor shall prepare a test plan for PVT-C in accordance with CDRL A005.

C.4.6.3 Failure Reporting, Analysis, and Corrective Action System (FRACAS). The Contractor shall implement a closed-loop failure reporting system for PVT, production, and post-fielding failures. The Contractor shall prepare and submit a Failure Analysis and Corrective Action Report (FACAR) IAW CDRL A007 in response to each Government prepared Test Incident Report (TIR) prepared during PVT-C and PVT-A. TIRs will be documented by Government data collectors in the Armys VISION Data Library System (VDLS). The Contractor will be given read and write access to the VDLS. The Contractor shall request access to VDLS following procedures documented on the VDLS website (://vdls.atc.army.mil) within 30 days after contract award. The Contractor must have a Army Knowledge Online (AKO) account established prior to requesting access to VDLS. The Contractor is responsible for regularly accessing VDLS and obtaining all TIRs released under this contract. Each FACAR shall consist of a comprehensive analysis of the test incident, the mode of failure, and root cause of failure, and document the corrective action proposed or taken to prevent recurrence of the incident. The Contractor shall furnish, upon request, a technical representative to attend Government reliability scoring and assessment conferences (not to exceed three) to answer specific questions related to the failure analysis conducted and to the corrective actions taken or recommended. All approved corrective actions shall be documented and incorporated into the Contractors production procedures and LCRTF technical data package, as applicable.

C.4.7 Contractor Support During - Government -Conducted PVT (PVT-A)

C.4.7.1 Contractor Furnished Materials for PVT-A. The Contractor shall furnish all Basic Issue Items (BII) (see paragraph C.1.1.1) and a commercial Operators and Service manuals with each vehicle delivered for testing. The Contractor shall inspect and service each test vehicle prior to shipment to ensure hardware is ready to operate upon receipt at the Government test location. For shipping instructions, see Section F, Deliveries or Performance.

C.4.7.2 Test Support Package (TSP) and Test Support Package (TSP) List. The Contractor shall provide a TSP List to the Government at the Test Readiness Review (C.4.2.2) in accordance with CDRL A008. The TSP List shall contain sufficient quantities of supplies (excluding fuel) needed to maintain operation of LCRTF test vehicles for the duration of PVT-A, all spares and repair parts deemed to have a high failure rate, and all special tools and Test Measurement Diagnostic Equipment (TMDE) required to perform maintenance. The Contractor shall deliver all items on the approved TSP List to the PVT-A site with the Test Articles in a weather-resistant container. The Contractor shall re-supply the TSP within 48 hours of notification.

C.4.7.3 Tester Training. The Contractor shall provide training for the PVT-A vehicle operators and test support personnel. The Contractor shall develop and conduct an introduction to the vehicle for Government support personnel prior to PVT-A testing. Training dates will be negotiated between the Contractor and Government. The training will cover system operation and controls required to safely operate the vehicle, preventive maintenance and other operator-level maintenance tasks. The training shall be at least 50% hands on training. The maximum length of the training class is 8 hours. The training shall be conducted at the Governments test facility, Aberdeen Test Center. The Contractor shall conduct training for a maximum of 12 personnel. Contractor may use commercially available material for this course.

C.4.7.4 Contractor Furnished Maintenance Support for PVT-A.

The Contractor shall provide technical and maintenance support during all periods of testing. Technical and support consists of providing qualified technical personnel to provide advice, trouble shooting, maintenance assistance, and repair of the system. The Contractor must be at the test site within 24 hours of notification by the Government and without any additional cost to the Government. Maintenance support consists of providing on-site troubleshooting and maintenance, service items needed to perform periodic services for the duration of the test, along with spares and repair parts. The Contractor is responsible for shipping and tracking the return of items to or from off-site repair facilities. The Contractor shall replace any part which fails to perform its function during the test, and correct any deficiency detected. All costs for parts and labor are the Contractors responsibility. The Contractor shall provide parts and/or deficiency corrections within 24 hours of notification.

C.4.8 Configuration Management

C.4.8.1 Configuration Baseline. The Contractor shall be responsible for maintaining configuration control of the products delivered under this contract. The Contractor shall establish a product configuration baseline upon successful completion of PVT-A. This

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baseline will identify and formally document the functional and physical characteristics of the LCRTFs. The documentation shall be made available for Government review upon request following establishment of the baseline.

C.4.8.2 Engineering Changes - Contractor Initiated. The contractor shall notify and receive approval from the Government prior to implementing any configuration change that impacts form, fit, or function. The Contractor shall submit requests for approval of changes to the configuration baseline to the Contracting Officer at least 60 business days before the proposed application date. The request for change shall include the information on CDRL A011.

C.4.8.2.1 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 PVT for that change. The Contractor will perform the tests at no additional cost to the Government. Further, any production or delivery delays caused by additional testing and inspection will not be the basis for an excusable delay as defined in the default clause of this contract. Such delays shall not form the basis for adjustment in contract price or delivery schedule.

C.4.8.2.2 Responsibility for Data

Within 45 business days of making any configuration change, the Contractor shall submit, at no cost to the Government, revisions to all affected contractual data deliverables.

C.4.8.2.3 Configuration Change Report

The Contractor shall maintain a record of configuration changes and shall submit a report summarizing all changes (whether or not change affects form, fit or function) made to date in accordance with CDRL A031.

C.4.8.2.4 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.4.8.2.5 Responsibility for the Cost of Changes

The responsibility for the cost of changes is as follows:

- a. This is a firm-fixed-price contract. There will be no price increases as a result of a Contractor initiated configuration change.
- b. The Government is not responsible for additional testing or software costs associated with any Contractor initiated configuration change.
- c. When a change results in reduced Contractor costs, the Government may, at the sole discretion of the Contracting Officer, require an equitable downward adjustment to the contract price.
- 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.4.8.3 Engineering Changes Government Initiated

In the event the Government desires a change to the end item configuration, the Contracting Officer will request, in writing, a technical/price proposal from the contractor.

C.4.8.4 Definitions

The following are definitions of Form, Fit, and Function:

**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.

**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,

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replacing item. When appropriate, the replacing item shall be inspected, replaced, repaired or otherwise maintained in exactly the same method as the item it replaces.

## C.5 LOGISTICS/SUPPORTABILITY

C.5.1 Integrated Logistics Support (ILS). The Contractor shall appoint an ILS Manager who will be responsible for managing the entire logistics scope of this contract. The Contractor shall plan, manage, and develop an integrated logistics support program through testing and fielding to ensure supportability of the LCRTF. At the Start of Work Meeting, the Contractor shall present their integrated logistics support plan for development and management of all logistics products as well as the ILS schedule (Attachment 024-ILS Schedule). The plan shall address all 10 elements of ILS identified in Army Regulation 700-127, Integrated Logistics Support and DA Pamphlet 700-56, Logistics Supportability Planning and Procedures in Army Acquisition. The plan shall include the proposed hardware top-down breakdown LSA Control Number (LCN) structure (C.5.2.1) to at least indenture level C, where indenture level A is the vehicle. Attachment 021 provides an example of LCN structure.

C.5.1.2 Supportability Analysis/Logistics Management Information (LMI). The Contractor shall conduct Supportability Analyses to develop logistics products described in this contract. The Contractor shall use MIL-PRF-49506, Performance Specification, Logistics Management Information (LMI), in identifying content, format, delivery and related guidance for logistics data except as otherwise identified in this contract. The Contractor shall validate all documentation prior to submittal to the Government. Government receipt of data deliverables does not constitute acceptance. Government acceptance of data deliverables hinges on the completeness, accuracy, compatibility of submitted documentation, and the applicable military standards and specifications.

C.5.2 Maintenance Planning. The Contractor shall analyze the maintainability characteristics of the LCRTF and plan maintenance supportability in accordance with the Armys Two-Level Maintenance policies outlined in Army Regulation 750-1, Army Maintenance Policy. The Contractor shall include all operational, maintenance and support functions for the system in the Maintenance Analysis.

C.5.2.2 Maintenance Analysis. 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, spare and repair parts and support equipment required for each replaceable and repairable item. The Maintenance Analysis shall include a maintenance task file documented in the Contractors format, and will serve as source data for development of the Maintenance Allocation Chart (MAC), Provisioning Technical Documentation (PTD), TMs and Army Manpower and Requirements Criteria (MARC). The Maintenance Analysis shall be documented in end item hardware breakdown sequence (top-down breakdown), using LSA Control Numbers (LCNs). The Maintenance Analysis Summary shall be prepared and delivered in accordance with Attachment 004(LMI Summary Worksheet: Maintenance Analysis) and CDRL A013. The Level of Repair Analysis (LORA) will be prepared and delivered in accordance with (Level of Repair Analysis) Attachment 005 and CDRL A014.

C.5.2.3 Draft Maintenance Allocation Chart (MAC). A preliminary report formatted and containing all the elements of a MAC shall be prepared as part of the Maintenance Analysis Summary and provided for each review.

C.5.2.4 Special Equipment, Tools, and Test Equipment (STTE). The Contractor shall deliver a list of Special Equipment, Tools, and Test Equipment utilized to maintain the LCRTF. The source data for this list will be the Maintenance Analysis, performed per paragraph C.5.2.2. The list shall be in tabular form and shall identify special tools and Test, Measurement, and Diagnostic Equipment (TMDE) not contained in the authorized U.S. Army Supply Catalogs. The list shall also identify all TMDE being utilized from the authorized U.S. Army Supply Catalogs to maintain or troubleshoot the LCRTF. A list of authorized Supply Catalogs (SCs) that contain common tools, and other SC information will be provided at the Start of Work meeting by the PM. Maximum use of common tools, support equipment, and TMDE normally organic to the user is required. If a required item is not contained in the SCs provided then the Contractor shall provide the proposed alternative item to the Government. The Government will decide whether or not the Contractor proposed alternative item will serve as a suitable and effective replacement for the item in question. The list shall provide Nomenclature, Cage Code (CAGEC), National Stock Number (NSN), if assigned, Part Number (PN), level of maintenance, and price of each item on the list. The Contractor shall deliver an STTE List in accordance with CDRL A015.

C.5.2.4.1 Special Tools. The following paragraphs are included to clarify special tools for Army use. Special tools are tools not identified in a unit's authorized Sets, Kits, and Outfits (SKO) SCs. Special tools include:

- 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 Repair Parts and Special Tools Lists (RPSTLs) and located in Technical Manuals (TMs) as appendices. Fabricated tools are used on a single end item.
- b. Tools that are supplied for military applications only (e.g., a cannon tube artillery bore brush) 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 the end item/unit (e.g., a spanner wrench used on a specific Ford engine model and on another engine in the Army inventory).
- d. Tools and TMDE required to maintain or diagnose the LCRTF that are not available in the units authorized SKO SC.

NOTE: Department of the Army Pamphlet (DA PAM) 700-60 provides regulatory guidance on Sets, Kits and Outfits. It may be obtained at: [://www.army.mil/usapa/epubs/xml\\_pubs/p700\\_60/head.xml](http://www.army.mil/usapa/epubs/xml_pubs/p700_60/head.xml)

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C.5.2.4.2 Test Measurement Diagnostics Equipment (TMDE). 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 all new TMDE.

C.5.2.5 Critical Stockage List (CSL). The Contractor shall deliver a draft critical stockage list for the LCRTF concurrent with the final Maintenance Analysis (see paragraph C.5.2.2). The items on the CSL are directly related to the provisioning effort required per this contract in that all procurable parts are required to be provisioned and are also required to be on the priced parts list required per this paragraph. The purpose of the CSL is to determine the parts that will comprise the ASL per paragraph C.1.1.3. The Government intends to procure these parts to support initial fielding of the LCRTF. The priced parts list shall also match the Bill of Materials (BOM) for the LCRTF to the extent the parts are applicable. The CSL shall be prepared and submitted in accordance with Attachment 006 (Critical Stockage List), and CDRL A016.

C.5.2.6 National Maintenance Work Requirement (NMWR) Candidates. The NMWR candidate list shall be a product of the Maintenance Analysis (see paragraph C.5.2.2). All components coded for repair at the sustainment level of maintenance with a unit price in excess of \$1000 will be a NMWR candidate. The Contractor shall annotate these components on the Maintenance Analysis and provide them as a separate list at each Maintenance Analysis review. The Government will review and approve the final list of NMWR candidates at the final Maintenance Analysis review.

C.5.2.7 NMWR Level of Repair Analysis. The Contractor shall perform a supportability analysis called a NMWR Level of Repair Analysis for each component on the Government approved NMWR candidate list. The LMI summary shall be in the Contractor's format, and shall be documented in accordance with Attachment 007 (LMI NMWR Level of Repair Analysis). 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 Level of Repair Analysis shall be delivered in accordance with CDRL A017.

### C.5.3 Diagnostics

C.5.3.1 Electronic Diagnostics Testability Analysis. The Contractor shall perform a testability analysis of the LCRTF diagnostics capability, to include number and types of diagnostic tests available for all LCRTF components, assemblies, systems and subsystems.

- a. The analysis shall identify all diagnostic fault codes for each component, assemblies, systems and subsystems and place them on a tabular format spread sheet. The codes shall be called out with the component, assemblies, systems and subsystems they support. The columns of the spread sheet shall consist of component, fault code/description, tests being performed, test equipment and parameters.
- b. The report shall include a description of on-board electronic diagnostic systems that may be interrogated for the purpose of maintenance and troubleshooting via an on-board diagnostic display screen.
- c. The report shall 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. All IETM data shall be coordinated with TACOM Expert Maintenance System (EMS).
- d. 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.
- e. All data buses and diagnostic connectors for each electronic control module shall be identified in detail, to include how the LCRTF shall meet the PD-TMDE goal to backbone all electronic diagnostic communication into one main data bus (SAE J1939) which can be accessed by one main diagnostic connector (SAE J-1939-13) which are both required by PD.
- f. The analysis shall be documented in an Electronic Diagnostics Testability Analysis Report and delivered in accordance with CDRL A018.

C.5.3.2 Diagnostics Software. The Contractor shall provide any software required to interface, retrieve, and interpret the LCRTF systems diagnostics data, as identified in paragraph 3.3.42 of the PD. The one-time run-time fee is as included in Section B.

### C.5.4 Provisioning

C.5.4.1 Provisioning Parts List (PPL). The Contractor shall develop and deliver LMI provisioning data (PPL) for all parts, special tools, BII, Component of End Item (COEI), Expendable/Durable and additional Authorized List (AAL) items identified on the LCRTF. 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 IAW MIL-PRF-49506, Attachment 008 (Provisioning Requirements Statement), Attachment 009 (LMI Data Worksheet Provisioning Data Requirements), and CDRL A020.

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C.5.4.2 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, the items part number and CAGE code, physical characteristics and function of the item. The Contractor shall furnish an illustration 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 this item has previously been assigned a valid national stock number. Section 6 of ASME Y14.100-2000 and MIL-STD-130N provides the requirement for incorporating markings for DoD item unique identification (IUID) into engineering drawings. Delineation of part identification markings on drawings shall be consistent with the requirements. The EDFP shall be submitted in accordance with CDRL A021.

C.5.4.3 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 or as part of the start of work meeting. 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 business days.

C.5.4.4 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.5.5 Equipment Publications

C.5.5.1 Logistics Demonstration (LD). The Contractor shall provide support to the Logistics Demonstration (LD). This support shall consist of: facilities; tables; chairs; Contractor personnel to assist with record keeping, equipment preparation and maintenance; mandatory replacement parts supply; consumables (such as rags, lubricants, sealants), Government provided tools (GFM); and Contractor-provided special tools. A Logistics Demonstration will be conducted by the Government team following completion of PVT-A and prior to or as part of TM verification to evaluate the adequacy of the Contractor developed System Support Package to include: the maintenance plan, support equipment, tools and test equipment, validated technical publications, LMI data, training, and human factors for the LCRTF. The LD tasks will be performed by Government target audience personnel and will consist of PMCS and troubleshooting. Upon completion the Contractor shall prepare a LD Report in accordance with CDRL A009 for Government review and approval. The report shall be in the Contractor's format and contain the following elements: Logistics Demonstration Strategy; details on the conduct of the LD, data collection, analysis results, all quantitative and qualitative findings; and a description of all necessary follow-on actions.

C.5.5.2 Technical Publications. The Contractor shall develop and deliver technical manuals (TMs) to support the LCRTF. The Contractor shall develop Interactive Electronic Technical Manuals (IETM) content using TACOMs Next Generation Electronic Maintenance System (EMS) portal. All technical manual content including XML, graphics, and multimedia files shall be delivered to the Government by uploading the files into TACOMs Content Management System (CMS) for publishing. Once the Government has approved the content for publishing, the Government will publish the IETMs and the Operators paper (PDF) TM through the CMS publishers. The TM and IETM preparation and the delivery requirements are described below. Information in the technical manual(s) shall be developed using data obtained from the Maintenance Analysis (see C.5.2.2).

TM 10-3930-XXX-10---Operator Manual (CDRL A022)

TM 10-3930-XXX-23&P---Interactive Electronic Technical Manual, Field Maintenance including Repair Parts and Special Tools List (RPSTL) (CDRL A023)

LO 10-3930-XXX-13---Lubrication Order (CDRL A025)

NMWR 10-3930-XXX-40-1~4---National Maintenance Work Requirement (B001)

NOTE: Actual publications numbers will be provided by the Government after contract award.

C.5.5.2.1 Operator Manual. The operator manual shall be prepared, developed, validated and delivered in accordance with MIL-STD-40051-2 w/change 3, MIL-STD-2361C, Attachment 010 (General Publications Requirements for Page Based Technical Manuals), Attachment 011 (Table A-II TM Requirements Matrix), and CDRL A022. Warranty information shall be included in the Operators Manual. (Attachment 019, the Contractors commercial warranty, to be supplied by the Contractor upon contract award).

C.5.5.2.2 USMC Operator Manual. The operator manual shall be prepared, developed, validated and delivered in accordance with MIL-STD-40051-2 with Change 3 and CDRL C010.

C.5.5.2.3 Field Maintenance with Parts - Interactive Electronic Technical Manuals (IETM). The IETM shall be prepared, developed, validated and delivered in accordance with MIL-STD-40051-1 w/change 3, MIL-STD-2163C, Attachment 012 (Interactive Electronic Technical Manual Publications Requirements), and CDRL A023. The IETM shall also include data from the operator manual and lubrication order. The IETM will be developed in non-linear format. Troubleshooting will be developed in complex format.

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C.5.5.2.4 USMC Field Maintenance Manual. The field maintenance manual with repair parts listing, including exploded views of all assemblies and subassemblies, shall be prepared, developed, validated and delivered in accordance with MIL-STD-40051-2 with Change 3 and CDRL C009. The Contractor shall also provide a part number-to-national stock number cross- reference with the repair parts list.

C.5.5.2.5 Lubrication Order. A stand-alone Lubrication Order shall be prepared, developed, validated and delivered accordance with MIL-PRF-63004D, Attachment 010 and CDRL A025.

C.5.5.2.6 National Maintenance Work Requirement (NMWR). The Contractor shall prepare and deliver a separate NMWR for the LCRTF engine, transmission, axles and hydraulic cylinders in accordance with MIL-STD-40051-2 w/change 3, Attachment 013 (NMWR Manual Requirements) and CDRL B001. The NMWR for each of the four components shall be differentiated by the use of a dash number after the 40 level.

C.5.5.3 Technical Publication Deliverables. The Contractor shall deliver all publications data in accordance with CDRLs A022 through A025 and B001 via TACOM Content Management System (CMS). The URL for CMS will be provided when available to the Government.

C.5.5.3.1 Draft Equipment Publication (DEP). The Draft Equipment Publication or DEP submission(s) shall be delivered as required in the appropriate CDRL. The DEP must be a complete publication in the same format as the final publication. Each DEP shall include all required content per the CDRLs and Attachments. The DEP will be used during the Logistics Demonstration and Verification.

C.5.5.3.2 Final Draft Equipment Publication (FDEP). An FDEP of each manual shall be delivered as required in the appropriate CDRLs in this contract. The FDEP shall have all DEP review, Log Demo and verification corrections, changes, and additions incorporated.

C.5.5.3.3 Final Reproducible Copy (FRC). FRC submission(s) shall be delivered as required in appropriate CDRL. The FRC shall include all content required by the respective CDRLs and attachment; and final resolution of all comments and recommendations made as a result of all testing, Government review, and results from the Contractor validation, Government verification and any maintenance literature conferences.

C.5.5.3.4 USMC Standard Terminology. In order to enhance Government/Contractor communications, standard terminology and definitions shall apply to all USMC Technical Publications.

C.5.5.4. Quality Assurance (QA). The Contractor shall be responsible for the quality of the TM deliverables. All delivered TM information shall be complete, technically accurate, and useable by US Army soldiers. To meet this requirement, the Contractor shall develop and use a QA Plan that guarantees:

- (1) Periodic QA reviews of TM content by persons different than those preparing the TM.
- (2) Maintenance of QA records detailing the findings of those reviews.
- (3) Controls to ensure that current, accurate engineering and parts information is available to TM preparers.

Government representatives have the right to review and comment on the Contractors QA Plan, records, and processes throughout the duration of the programs efforts.

C.5.5.4.1 Equipment Publications Defects List. The Contractor shall review and utilize the Equipment Publications Defects List, Attachment 014, which the Government uses to guide review of all publication deliverables. Publications deliverables developed under this contract shall not contain any defects listed on the Equipment Publications Defects List.

C.5.5.4.2 Acceptable Quality Level (AQL). The Governments goal is to ensure that the Contractor has performed sufficient Quality Assurance to eliminate from the TM all defects as defined in the Equipment Publications Defects List (Attachment 14). The DEP must meet AQLs before the Government will accept the DEP and move forward to plan Government Verification. The Government plans to review 100 percent of the DEP. If any DEP submission fails to meet either AQL criterion Percentage of Critical Errors or Percentage of Major Errorsthe DEP will immediately be rejected through official notice to the Procuring Contracting Officer (PCO). Critical and Major errors are defined in the Equipment Publications Defects List. Calculation of percentage is based on defects per page. During the verification, NO GOS will be corrected and returned to the verification team within 48 hours. (A NO GO is defined as a work package that contained critical or major defects that prevented the procedure from being performed as written.)

AQLs	TM Size	Sample Review Size	Percent of Critical Errors	Percent of Major Errors	Rejected	Less Than 50 WPs	All WPs	10 Percent	25 Percent	Yes	50 or more WPs
25	Percent	10	Percent	25	Percent	Yes					

C.5.5.5 Contractor Validation. The Contractor shall validate the technical accuracy and adequacy of all content in the DEP prior to its delivery to the Government. The Contractor shall maintain records of Validation reviews that show when the material was reviewed, how the procedures were performed, what the findings were, and all corrective actions taken. The records shall be signed and certified by two separate Contractor representatives. Validation personnel must include personnel who did not author the procedure. Government representatives have the right to witness entire or selected portions of the Contractors Validation effort.

C.5.5.5.1 Validation Process. All Operation, Preventive Maintenance Checks and Services (PMCS), Troubleshooting, and Maintenance procedures shall be 100 percent hands-on performance validated to ensure accuracy, compatibility, and completeness. Troubleshooting procedures shall be validated to the extent possible without damage to equipment. All performance validation shall be done using

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Government-issued tools available to the soldier at the designated level of maintenance. The Contractor shall ensure the TM data accurately reflects and supports the LCRTF configuration only, including any and all changes to the configuration resulting from testing, vendor parts supply, and production-line changes. Other content, such as Controls and Indicators, Front Matter, Rear Matter, Torque Tables, Theory of Operation, Glossary, and Index information, shall be validated by review against engineering data, TM data, and/or Government-procured production configuration hardware.

C.5.5.5.2 Validation Plan. The Contractor is required to have and to use a Validation Plan to validate TM content. The Validation Plan shall specify how TM content will be validated and when and where that content will be validated. The Validation Plan shall describe the Validation method used for each type of TM content. The Validation Plan shall be made available to the Government for review upon request. The Government may provide comments on the plan to ensure technical accuracy and adequacy of the TM deliverables.

C.5.5.5.3 Validation Report. A Validation Report shall be delivered after Validation completion, IAW CDRL A027. The Validation Report shall certify that Validation has been completed, shall list in detail the effort undertaken during Validation (processes, corrections, etc.), and shall show the TM deliverable has had QA applied with use of the Equipment Publications Defects List (Attachment 14). The Validation Report shall include a signature of an individual authorized to represent the Contractor. The Contractors complete validation records (see C.5.5.5) shall be made available to the Government upon request.

C.5.5.6 Government Verification. The Government is responsible for Verification of the TM and NMWR to ensure accuracy and usability by US Army soldiers. Government representatives will review the DEP to determine that proper QA has been used during preparation, that the DEP is complete, and that the DEP is adequate for Verification. Verification may consist of hands-on performance of up to 100 percent of Operators and Maintenance procedures. The Government has the right to choose to verify the TM and NMWR by desktop review, review on equipment, hands-on performance, or any combination of these methods. The Government intends to verify by performance to the extent required to ensure the Contractor has properly prepared and validated TM content.

C.5.5.6.1 Contractor Facilities Support to the Government Verification. The Contractor shall provide support to the Government Verification process. This support shall consist of: facilities; tables; chairs; Contractor personnel to assist with record keeping, equipment preparation and maintenance; mandatory replacement parts supply; consumables (such as rags, lubricants, sealants), Government provided tools (GFM); and Contractor-provided special tools.

C.5.5.6.2 Contractor Personnel Support to Government Verification. The Contractor shall also provide personnel to take notes of all corrections, to answer questions, to review Verification issues, and to advise the Government of changes or recommendations that arise during Verification. The Contractor shall arrange for the services of a photographer to assist in documenting problem areas and changes required to correct errors or omissions in the DEP procedures being verified.

C.5.5.6.3 Correction of Errors in Data. The Contractor shall correct all errors found in the TM, IETM, and electronic data files resulting from Contractor and Government reviews, tests, Validation, and Verification at no additional cost to the Government.

#### C.5.6 Packaging

C.5.6.1 Packaging Data. The Contractor shall develop and provide LMI-packaging data for all provisioned "P" coded items other than "PR" or "PZ". The Contractor shall develop new or corrected LMI Packaging Data for any revision as a result of a configuration change. The Contractor shall provide facilities, equipment, materials, and access to the provisioned items for packaging development at no additional cost to the Government. The Contractor shall include verification support data for each LMI Packaging Data submission, to allow the Government a reasonable means of determining the adequacy of the Contractors packaging analysis. This shall include item drawings and copies of applicable Material Safety Data Sheets (MSDS) for Hazardous Material items. Excluded items are those items with packaging data already in the TACOM Packaging File "PACQ", FEDLOG, FLIS, and those assigned a Contractor and Government Entity Code (CAGE) of: 1T416, 21450, 80204, 96906, 10060, 24617, 80205, 99237, 80244, 81343, 81348, 81349, 81352, and 88044.

C.5.6.1.1 Packaging/Logistics Data Entry. The Contractor shall develop, maintain and update packaging data IAW Attachment 015 (LMI Data Worksheet: Packaging Data Requirements), Attachment 016 (LMI Data Worksheet: Packaging Data Transaction Format), and CDRL A029. 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 TACOM approved 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 Contractor's request, the Government will provide a Microsoft ACCESS application that provides data formatting and edit features for coding of packaging data products in accordance with MIL-STD-2073-1D.

C.5.6.2 Special Packaging Instructions (SPI): The contractor will prepare SPIs for these items: engine, transmission, axles and hydraulic cylinders, each fragile, sensitive, critical item, and any item that cannot be adequately packaged/defined as a Select item, following MIL-STD-2073-1D. The items managed by TACOM would include items such as those being considered as National Maintenance Work Requirement (NMWR) candidate items. Development of SPI shall be in accordance with MIL-STD-2073-1D Appendix C, Level A packing. The SPI for the engine shall include preservation procedures and validation with coordination from TACOM-LCMC packaging office in Warren, MI. ATPD 2232 can be used as a guide and is found at [://www.ilsc.army.mil/tdps/index.asp](http://www.ilsc.army.mil/tdps/index.asp). 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

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format and content of SPI shall be in accordance with CDRL A030.

C. 5.6.3 Validation Testing of Preservation Processing and Packaging: Validation testing of SPI candidates shall be in accordance with ASTM D 4169 (Standard Practice for Performance Testing of Shipping Containers and Systems) Distribution Cycle 18, Assurance Level I, with Acceptance Criterion 3 (product is damage free and packaging is intact), but exclude the following tests: Low Pressure Hazard, Environmental Hazard, and Loose Load Vibration. Each SPI submitted shall have a validation test report, including photographs illustrating the before and after testing results including the item and packaging application. Acceptable photographic evidence shall show the product is undamaged from all views. Items with previously approved documented test results may be exempt from validation testing. Test results, as well as, engine preservation validation shall be submitted concurrently with SPI submittal and in accordance with CDRL A0030.

#### C.6 TRAINING

C.6.1 USMC Management of Training Development. The Contractor shall appoint a Training Manager who shall be the single point of contact for training and courseware development matters. The Training Manager shall have a degree in education or equivalent military background and should have a background in the development and presentation of military and/or civilian training programs. The duties of this Training Manager shall include, but not be limited to, the coordination of training courseware analysis, design, development, presentation, and modification. The Contractor shall establish a Curriculum/Training Materials Working Group to monitor and manage the development of training materials to support the system.

C.6.1.1 USMC Training Program Plan. The Contractor shall provide a Plan of Action and Milestones (POA&M) for the training program as a portion of the LCRTF Training Program Plan. The POA&M shall identify proposed course dates; proposed Job Task Analysis dates; proposed 30%, 60%, and 100% review dates; and delivery dates for draft and final training materials. All training material deliveries shall include a current state copy of the systems Technical and Operator Manuals in accordance with (IAW) CDRL C001-Training Program Plan (TPP).

C.6.1.2 USMC Training Program Reports. The Contractor shall develop Training Program Progress Reports. The Contractor shall provide Training Program Progress Reports to inform the Government on matters related to design and development of training materials and planning for training events per the Contract. The Contractor shall use the Government-approved Technical Management Plan of Action and Milestones (POA&M) for the training program proposed in the Training Program Plan (TPP) to identify training dates and delivery dates of draft and final training materials. Progress on this POA&M must be included in the Program Progress Reports. The Contractor shall include the status on all training materials, a list of problem areas encountered and solutions/alternatives proposed or executed, and expenditures to date in each report. The Contractor shall prepare in Contractor format the training Program Progress Reports IAW CDRL C002-Training Program Progress Report.

C.6.1.3.1 USMC Instructional Performance Requirements Documentation (Training Task Data) Development. The Contractor shall develop the Instructional Performance Requirements Documentation (Training Task Data) IAW NAVMC 1553.1 SAT User Guide. The Government approved Instructional Performance Requirements Documentation (Training Task Data) shall be used as the basis for the development of the course curriculums. The Contractor shall perform a LCRTF Job Task Analysis (JTA) with Government participation. The JTA will identify individual LCRTF operator and maintainer tasks (up to and including intermediate level). The identification of who is to perform the operator and maintenance related tasks will either require the creation of Source, Maintenance, and Recoverability (SM&R) codes or be derived from existing SM&R codes. The analysis will provide the identification of who will perform the task (operator, maintainer, or both) IAW the CDRL C003-Instructional Performance Requirement Documentation. The Contractor shall prepare and deliver all training materials in accordance with the Government approved training POA&M proposed in the TPP. All training materials (training critical task list, LCRTF Operator and Maintainer Training Schedule, detailed lesson plans, etc) shall have been submitted, reviewed, corrected if required, and approved by the Government 30 days or more prior to execution event.

C.6.1.3.2.4 USMC Training Test Package Development. The Contractor shall develop the LCRTF Training Test Package in accordance with NAVMC 1553.1 SAT User Guide using Microsoft products. The test package shall include written and performance tests based upon the Instructional Performance Requirements Document. Written test items shall consist of true/false, multiple choice, and fill-in-the-blank questions. The test questions shall be written to evaluate the trainees comprehension of knowledge-based learning objectives and the Test Packages shall include a minimum of three test items for each learning objective. The performance tests shall be developed to evaluate the trainees ability to perform specific Operator or Maintainer tasks and subtasks and shall be presented in checklist format. The Contractor shall prepare a test package IAW CDRL C007-Training Test Package.

C.6.2 New Equipment Training (NET). The Contractor shall develop courses of instruction and deliver associated training materials to train the operators and maintainers of the LCRTF. When called up in a Delivery Order, the Contractor shall conduct New Equipment Training classes.

#### C.6.2.1 New Equipment Training (NET) Courses.

C.6.2.1.1 Operator and Operator Maintenance (OPNET). The OPNET course shall be designed to train operators of the LCRTF and cover complete vehicle operation and load handling, safe operation of the vehicle, general safety, operator Preventive Maintenance Checks and Services (PMCS), loading and unloading for transport, complete tie down for shipment, and proper use of on-board tools, equipment, and

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basic issue items (BII). The training shall be consistent with procedures established in the appropriate vehicle technical manual. The course shall be at least 70 % hands-on and 40 hours in duration, or equivalent based on a maximum of 12 students per class. At the end of each class, the Contractor shall conduct a hands-on performance test for each operator being trained. The Contractor shall score each student based on their performance.

C.6.2.1.2 Field Level Maintainer New Equipment Training (FLMNET). The FLMNET course shall be designed for field level mechanics supporting the LCRTF and cover minimal operation characteristics, field level PMCS, troubleshooting, diagnosis and repair of system unique control systems, engine, fuel, transmission, axle, braking, electrical, hydraulic, pneumatic, boom and other ancillary systems of the vehicle. The course shall be directed toward new technologies and items not currently in the Army system or different from the current system in the field. Training shall be consistent with procedures established in the appropriate vehicle technical manual. The training shall include a block of instruction using the IETM and MSD diagnostic tool. The course shall be 40 hours in duration, or equivalent based on a structure of 12 students per class.

C.6.2.1.3 Soldier Feedback Event - The contractor shall conduct and host a Soldier Feedback Event for the Light Capability Rough Terrain Forklift (LCRTF) at the contractors facility. The event shall include a minimum of two representative soldiers and shall not exceed four. The event will also include up to four other Government representatives. The contractor shall provide fully operational LCRTFs. This event will provide the opportunity for the soldier to receive New Equipment Training (NET), and perform hands on familiarization. The culmination of this event will be for the soldier to demonstrate the ability to operate and successfully perform LCRTF functions. The date will be mutually agreed upon by the Government and contractor. The event shall be supported by the contractor for three days.

C.6.2.1.3.1 The event must include the following soldier activities and operations:

- (1) Carriage Control
- (2) Carriage removal
- (3) Load and unload operations/placement (with MOPP-4 Clothing and without battle gear) on improved and natural terrain
- (4) Cargo Handling/Pallet operations
- (5) Travel - minimum of 20 mi/hr without load up to 3 miles
- (6) Braking with a rated load not to exceed 5000 pounds, and without
- (7) Emergency boom lowering and retracting
- (8) General operator maintenance action
- (9) Operation with arctic gear (supplied by the Government) if gear is available (Army Extreme Cold weather boots NSN 843000655551 and Extreme Cold weather mittens NSN 8415015272721
- (10) Night driving visibility with service life demonstration in a dark chamber
- (11) Installation/removal boom elevation safety break assembly to access side engine panel
- (12) Installation/removal and use of portable tow pintel on fork tines (to move trailers, disabled vehicles in a tight space (i.e. motor pool)
- (13) Installation and general operation with M4 rifle (supplied by the Government) - if M4 rifle is available

C.6.2.1.3.2 The contractor shall document and describe each event and collect general comments from the soldiers. At the completion of the event, the contractor shall collect and submit all soldier comments to the Government in accordance with CDRL A033-Soldier Feedback Event Report.

C.6.2.1.3.3 Liability. The Government shall have no liability to any damage to the LCRTF machines as a result of this event.

C.6.2.2 Training Material and Documentation. For each NET course, the Contractor shall develop, prepare and deliver the following course documentation and training materials.

C.6.2.2.1 Training Course Control Document/Course Outline. For each course, the Contractor shall develop a separate Training Course Control Document describing the course content (subject, topics, and task), training material, types and duration of instruction, and all resources and support required to conduct the training in an institutional setting. The Training Course Control Document shall contain front matter, an introduction, course description data, outline of instruction summary, curriculum outline of instruction, course summary and presentation schedule. The Course Outline shall be delivered in accordance with CDRL A024.

C.6.2.2.1.1 USMC Training Program Structure Documentation (Curriculum Outline of Instruction) Development. The Contractor shall develop the Training Program Structure Documentation (Curriculum Outline of Instruction) in accordance with NAVMC 1553.1 SAT User Guide. The outline shall identify the LCRTF (Operator and Maintainer) training courses class schedule of events and include a breakdown of individual topics showing the learning objectives and time allotted, instructional materials required, facilities and instructor requirements, media and training support equipment, reference materials, type of instruction (lecture, demonstration, practical application), and tools and TMDE required for each period of instruction. Contractor format is acceptable.

C.6.2.2.2 Instructor Lesson Plans, Student Guides. For each course, the Contractor shall prepare an Instructor Lesson Plan and a

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Student Guide. Each element of the training course outline shall be fully developed, finalized and delivered in accordance with CDRL A032. The Government can provide sample training materials and outlines at the Start of Work (SOW) meeting upon request. The Contractor may supplement Operator and Maintainer Training used for Commercial Customers with information reflecting militarization of the system. All student and instructor lesson material and guides used to conduct the training course shall be included. The 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. Materials submitted must not conflict with the content of the vehicle technical manuals. No classified information is to be included in the training materials. The Contractor shall deliver all course control documents and training materials in accordance with CDRL A032.

C.6.2.2.2.1 USMC Training Conduct Support Document (Lesson Plan Data Requirements) Development. The Contractor shall develop the Training Conduct Support Document (Lesson Plan Data Requirements) in accordance with NAVMC 1553.1 SAT User Guide using Microsoft products. Lesson plans shall be sequenced and contain information relevant to each period of instruction including training objectives and instructions for the delivery of training, equipment required, application of training visual aids, written test questions, and task performance checklists. Time required for delivery of an individual period of instruction/lesson plans shall not exceed four (4) hours. The Contractor shall prepare the Course Conduct Support documentation IAW CDRL C004-Lesson Plan Data Requirements.

C.6.2.2.2.2 USMC Instructional Media Package (Courseware Data Files) Development. The Contractor shall develop the Instructional Media Package Development (Courseware Data Files) in accordance with NAVMC 1553.1 SAT User Guide using Microsoft products (contractor format is acceptable). The Courseware Data Files shall contain the graphics that enhances the transfer of knowledge to the students and their mastery of tasks, and shall provide information and summaries relevant to each period of instruction to include training objectives and technical references. However, narration should not be included as it is responsibility for the instructor to verbally teach the course. The Contractor shall prepare the Instructional Media Package Development IAW CDRL C006-Courseware Data Files.

C.6.2.2.2.3 USMC Conduct Support Document (Trainee Guide Data Requirements) Development. The Contractor shall develop the Training Conduct Support Document (Trainee Guide Data Requirements) in accordance with NAVMC 1553.1 SAT User Guide using Microsoft products. The Student Guides (Handouts) shall contain information that enhances the students mastery of tasks, and shall provide information and summaries relevant to each period of instruction to include training objectives and technical references. The Contractor shall prepare the Course Conduct Support Documentation IAW CDRL C005- Trainee Guide Data Requirements.

C.6.3 Critical Task List (CTL). The Contractor shall develop a list of all tasks considered critical for the operator or maintainer to accomplish their mission and duties and to survive in the full range of Army operations. Critical tasks must be trained. The Contractor shall ensure any new maintenance tasks identified during the Maintenance Analysis (see paragraph C.5.2.2) are also included. The Critical Task List shall be developed in accordance with TRADOC Regulation 350-70 for Task Analysis and Task Development and delivered in accordance with Attachment 002 (Critical task List).

C.6.4 Instructor and Key Personnel (I&KP) Training. The Contractor shall conduct two training classes (one operator and one maintainer) conforming to the NET courses (C.6.2.1) to train instructors and other key personnel. The Contractor shall use the NET course training materials developed under this contract. The Contractor shall provide vehicles, special tools, parts, training aides, materials, and facilities to conduct training. The Contractor will ship the vehicle and the Government provided common tools to the training facility. Target the courses for individuals who are instructors, skilled operators, and mechanics.

C.6.5 New Equipment Training (NET) Classes. The Contractor shall conduct NET classes with course material developed under paragraphs C.6.2.1.1 and C.6.2.1.2 at Government sites or at receiving unit sites during hand-off at the prices stated in section B. The number of classes, duration, and training locations will be identified in separate delivery orders. Trainees may either be Government personnel or Government support Contractors. The contractor shall receive a favorable evaluation from at least 80% of the students in order to meet contract requirements. Method and frequency of surveillance shall be in accordance with CDRL A028. Class size is anticipated to be twelve students. Course requirements and course content shall utilize Government approved training materials developed under C.6.2.2. The Government will provide the Contractor 30 days notification for CONUS classes. The Government will provide the Contractor 90 days notification for OCONUS classes. The rate set in schedule B for CONUS and OCONUS locations excludes Travel expenses (subsistence, lodging, and incidental expense) incurred for NET. Travel expenses for NET classes will be priced by zone in accordance with Section B of the contract.

C.6.6 Training Course Completion Report/Student Training Administration. This section applies to I&KPT (C.6.4) and NET (C.6.5). The Contractor shall complete and deliver a Training Course Completion Report upon completion of each class in accordance with CDRL A028. The report shall include the course name, vehicle system, dates, student names, home unit and address, and evaluation of student performance.

C.6.6.1 USMC Course Conduct Information Package (Trainee and Training Course Completion Data). The Contractor shall develop the LCRTF Course Conduct Information Package (Trainee and Training Course Completion Data), upon completion of each USMC LCRTF training class for New Equipment Training (NET), and a course critique completed by each student. The Contractor shall present each student with a course completion certificate. The Contractor shall prepare the Course Conduct Information Package in Contractor format 10 days after

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completion of each training course IAW CDRL C008- Course Completion Data. The USMC can supply the contractor with a sample of a critique.

C.6.7 Instructor Certification and Credentials. All training will be conducted by instructors certified by the International Board of Standards for Training Developers and Instructors (IBSTDI) or military equivalent. The Contractor shall provide proof of certification to the PCO.

C.6.7.1 USMC Instructor Certification and Credentials. The Contractor shall ensure that their instructors are members of the curriculum development team and are able to fully teach the curriculum. They shall be able to read, write, speak, and comprehend the English language including technical language and terms associated with the operation, repair, installation, maintenance, assembly, and disassembly of the system and subsystem. Contractor personnel conducting training shall have an understanding of all tasks to be taught under this contract. Sixty (60) days prior to the conduct of any training, the Contractor shall provide to the Government written certification of the proficiency and skill of instructors scheduled to conduct the required training. The Government will review and approve Contractor-proposed instructors 30 days prior to the start of training.

#### C.7 ITEM UNIQUE IDENTIFICATION (IUID)

C.7.1 In accordance with DFARS 252.211-7003, the contractor shall mark each LCRTF and the following components with a Unique Identification Descriptor (UID): engine, transmission, axles and hydraulic cylinders. The UID is to be developed in accordance with MIL-STD-130N, or the most recent version of this document. Also, the Contractor shall deliver a UID component candidate list for potential additional items qualifying for the UID marking in accordance with the CDRL A026. The Government will review and provide the final UID list. (USMC)

C.7.2 The Contractor shall use MMIL-STD-130N and MIL-STD-129 to create the IUID and marking method. The Contractor shall use IUID Construct #2. The end item data UID marking shall be embedded on the system data plate. (USMC)

C.7.3 As the requiring agency, the Government has determined that the Contractor will develop the UID as Machine-Readable Information (MRI) marking. The MRI marking shall be in 2D Data Matrix marking and meet the minimum quality requirements per MIL-STD-130M. The MRI protocol shall follow protocol standard ISO/IEC 15434 or ISO/IEC 15418. The MRI content shall contain:

\b7	Applicable Enterprise Identifier (EID)
\b7	Serial Number
\b7	Part or Identifying Number (PIN)
\b7	National Stock Number (NSN)
\b7	Nomenclature

The DCMA QAR will verify and validate the UID's compatibility and operability with the mandated DOD system as described in MIL-STD-130M.

C.7.4 It is the Contractors responsibility to submit receiving reports electronically into the DoD Wide Area Workflow Receipt and Acceptance System (WAWF). Although WAWF is the preferred method of data submission, if the Contractor cannot use WAWF for UID, the Contractor must notify the Government at the Start of Work Meeting and arrangements may be made to allow the Contractor to submit the receiving report through either X12 or UDF submission formats. Information on WAWF is available at:

://www.acq.osd.mil/dpap/UID/DataSubmission.htm

://www.dcmamil Under Electronic Invoicing

C.7.5 It is recommended that the Contractor has a portion of its UID submission reports validated prior to submitting all UID reports to WAWF. This can be done by sending an email to the Unique Identification Program Office ([info@uniqueid.org](mailto:info@uniqueid.org)). Include your name, organization, phone number, email address, and the file format you will be using. (USMC)

#### C.8 SYSTEM HAND-OFF

C.8.1 Total Package Fielding. The Government will use a Total Package Fielding (TPF) approach for delivery and hand-off of the system to receiving units. The Government will coordinate with the Force Modernization Offices (FMOs), Army Field Support Battalions (AFSBs), and/or Reserve Component points of contacts to establish Materiel Fielding Plans (MFPs). The Contractor shall transport and deliver all hardware and associated support packages (identified in C.1) IAW Shipping instructions. Contractor shall perform post-delivery de-processing and support hand-off of the equipment to receiving units. One system hand-off shall consist of at least one unit and will not exceed eight units. If multiple delivery locations are required within the same hand-off zone, then the cost of the system hand off will be on a per delivery location basis.

C.8.2 Acceptance and Registration. For each vehicle presented for Government acceptance, the Contractor shall prepare a DA Form 2408-9, Equipment Control Record, IAW the Acceptance and Registration instructions (in paragraph 5-7c (3) of DA PAM 750-8) to report acceptance of each LCRTF into the U.S. Army inventory. A copy of the form is furnished at Attachment 017. 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

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into the Army inventory.

C.8.3 Inventory List. The Contractor shall develop a complete Inventory List using a DA Form 3161 and 3161-1, Request for Issue or Turn-in according to DA PAM 710-2-1 and CDRL A012. The Inventory List shall include a complete inventory of all material shipped with the vehicle, including the end item, publications, Basic Issue Items (BII), Components of the End Item (COEI), Initial Service Kit (ISK), Authorized Stockage List (ASL), and special tools. The Inventory List will be used at each fielding to conduct hand-off. It will be updated to reflect any changes in items, part numbers, or NSNs as needed through delivery of final vehicle on contract.

C.8.4 Delivery and Fielding after NET. For each delivery required under this contract, the Contractor shall deprocess the equipment, activate the warranty, and support hand-off of the equipment and associated support packages to the gaining units after NET has been provided to the units. NET will either be provided by the Contractor or the Government as determined by the Government. The Government reserves the right to have Government representatives present at all hand-off activities. Hand-off and training costs for OCONUS sites only will be negotiated after contract award.

C.8.4.1 Delivery Deprocessing. All vehicles shall be delivered in a full ready to operate configuration prior to training and/or hand-off. The Contractor shall be responsible for all tools, equipment, and personnel required to deprocess, repair or reassemble the equipment, including replacement of missing or damaged parts or components.

C.8.4.2 Delivery Site Familiarization. When required by the Government, the Contractor shall provide familiarization training for a small group of 6-8 operators at the delivery site to allow movement of the vehicle within the delivery site until full training and hand-off is accomplished. The training should not exceed one (1) hour and shall include proper start-up and shut down procedures, basic operation (driving) procedures, safety precautions, and daily or weekly preventative maintenance checks.

C.8.4.3 New Equipment Training (NET). When called up by a Delivery Order, the Contractor shall provide Operator and Maintainer NET at the fielding site in accordance with section C.6.2. In either case, the NET shall be performed prior to hand-off and transfer of all equipment to the receiving unit.

C.8.4.4 Inventory and Hand-off. The Government, Contractor and receiving unit shall conduct a joint inventory and sign DA Form 3161 for each vehicle delivered at hand-off. The DA Form 3161 (as approved under C.8.3) shall include the vehicle serial number, registration number and Unique Item Identifier (UII) of the end item (and any separately provided component that qualifies for UII) as well as the unit(s) PBO name, commercial phone number and e-mail address. The DA 3161 will then be provided to the PM IAW CDRL A012. In addition, the Contractor shall maintain a database of all vehicles and equipment produced and provided to the Government by serial number, registration number, and delivery information (i.e., ship to DODAAC, unit UIC, location and date, Delivery Order, price, etc.). This accountability report shall be delivered in accordance with CDRL A019. The contractor shall note any UII information that is missing from the hardware, if applicable, on this report to aid in correcting the hardware.

**C.9 WARRANTY**

C.9.1 Commercial Warranty Requirement. The Contractor shall overpack (with the Technical Manuals) a copy of the vehicles standard applicable commercial warranty, with all applicable pass through warranties, inside each LCRTF delivered to the Government. The warranty period shall not begin until handoff of the machine has been made to the receiving unit.

C.9.1.1 The Commercial Warranty shall cover any Engineering Change Proposals (ECP) that are added to the base configuration of the vehicle.

C.9.2 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 accordance with CDRL A010. In addition, the report shall include the number of operating hours on the vehicle at the time of fault.

C.9.3 USMC LCRTF. The Contractor shall provide a 60-month or 5,000-hour warranty, whichever comes first, for all components (with the exception of consumable items; fluids, hydraulic hoses, filters, belts, bulbs, fuses, fasteners, batteries, bearing, mufflers - unless it is established that such part was defective at the time of delivery from the original manufacturer of the USMC LCRTF). The warranty period shall commence on the date delivered to the applicable unit during hand-off, or after inspection and acceptance at the Government site. If the LCRTF is placed into storage at the Contractor facility, the warranty will be not activated until the official handoff to the Government. The warranty shall encompass comprehensive worldwide support. Operational requirements establish threshold of acceptance or rejection of all claims within 96 hours (with a target of 48 hours) of claim being initiated. The requirement for delivery of OCONUS parts and service is within 14 business days. The Contractor will not perform on-site warranty repairs in contingency areas; however, they will provide parts support. Parts may be shipped by air, or to a designated CONUS float location, as determined appropriate by the Government. The Contractor may be required to ship parts directly to overseas locations, at the discretion of the Government. The warranty shall be all-inclusive to include costs such as time and travel, shipping, parts, and labor.

C.9.3.1 USMC Warranty Management. The Contractor shall establish and maintain a warranty performance system that identifies and documents all USMC LCRTFs to be warranted under this contract. Each LCRTF warranted shall be indexed and identified by serial number, model or part number, and date of acceptance by the Government. Warranties shall become effective upon delivery at the using unit during hand-off. All pertinent data required for the Government to pursue warranty provisions, remedy, and relief for each LCRTF shall be maintained by the Contractor for the duration of the warranty period. All warranty claims and transactions shall be documented and

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made available for Government review during scheduled meetings and reviews.

C.9.3.2 USMC Execution of Warranty Claims. The Contractor shall use the Program Manager Engineer Systems (PM ES), Warranty Service and Support Claims Tool (WSSCT) to manage all warranty claims under this contract pertaining to the USMC LCRTF. 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 LCRTF. URL: <http://www.marcorsyscom.usmc.mil/sites/warranty/>
- b. Accept or reject all claims within 96 (with a target of 48) hours of claim being initiated.
- c. Maintain a dialogue with the User, Warranty Coordinator, and Project Officer using a combination of the Comments Log and email on all warranty claims.
- d. Order and ship of all parts under warranty.
- e. Perform repairs on all claims under warranty. The Contractor shall adhere to the following repair cycle times:
  - \* Continental United States (CONUS): 7 Days Parts and repair.
  - \* Outside Continental United States (OCONUS): 14 Days Parts and repair.

If the Contractor cannot meet the respective cycle times, the Contractor shall notify the PCO in writing within 24 hours of receipt of the warranty claim.

- f. Overseas Contingency Operations (OCO): 14 Days Parts only

#### C.10 FIELD SERVICE REPRESENTATIVES (FSRs)

C.10.1 General. The Contractor shall provide Field Service Representatives who will provide on-site technical support (both CONUS and OCONUS), during contingency and non-contingency operations. The FSRs shall be experienced personnel and qualified to advise, make recommendations, and to orient, and instruct key Government personnel with respect to operation, maintenance, and repair of the LCRTF and its components. The effort consists of investigation and diagnosis of problems or issues in the field 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. Instructions and established itineraries will be provided in delivery orders.

C.10.2 FSR Reporting. Each FSR shall prepare and submit via e-mail an Field Service Report in accordance with CDRL A006 following completion of each assignment covering their activities.

C.10.3 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.10.4 FSR Labor

##### C.10.4.1 CONUS and Non-contingency OCONUS.

C.10.4.1.1 For this contract, CONUS is defined as any location in the continental United States. OCONUS is defined as any location outside the continental United States. Contingency is defined as operations in locations in support of deployments in hostile areas. Non-contingency is defined as operations in fielding or deployments in support of normal operations in CONUS or OCONUS (e.g., Germany).

C.10.4.1.2 For emergency deployments, the contractor shall arrive at the designated location within two weeks of delivery order issuance. For a regular deployment, the contractor shall arrive within thirty days of delivery order issuance. For CONUS non-contingency efforts, the period of performance will be negotiated in the delivery order.

##### C.10.4.1.3 Man-Days of Service

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-Day(s) of service includes travel time for initial travel from Contractor's facility to site of work, for travel between sites of work, and to Contractor's facility. It also includes any time that the FSR is preparing required reports at the work site and we can verify the time involved in writing the report. 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 and other holidays and sick leave pay. 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 responsible for actual days worked by any qualified Contractor representative. It is immaterial whether the same representative completes the assignment. The travel costs, if necessary, will be negotiated at the time the delivery order is issued, on a firm-fixed price basis, and not to exceed Government Joint Travel Regulations. The negotiated price for travel costs will include only one complete round-trip transportation and travel costs between sites of work per assignment. Travel will be funded on a separate CLIN, and is not included in the composite labor skill set or rate. Contractor travel will be all inclusive, with proposal to reflect air travel, ground travel, lodging, per diem, etc., as individual line items. Individual delivery orders will provide travel details for discreet projects.

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Field Service Representatives may be called up in one of two ways:

a. A CONUS Man-Day is 8 hours and the representative is to work no more than 40 hours per week, unless otherwise negotiated at delivery order issuance.

b. An OCONUS non-contingency Man-Day is 10 hours a day, seven days a week, unless otherwise negotiated at delivery order issuance.

#### C.10.4.2 OCONUS Contingency

C.10.4.2.1 OCONUS contingency deployments require contractor personnel to process and de-process through the Combat Readiness Center (CRC). The government will schedule the CRC processing dates.

C.10.4.2.2 FSR Rest and Relaxation Requirement. Deployed FSRs will be given two weeks of R&R leave per every six months in the AoR. The Government shall provide transportation from the AoR to the Point of Debarkation and from the Point of Debarkation to the AoR. Airfare from the Point of Debarkation to the U.S., and return trip, will be funded as described in paragraph C.10.4.2.4.2 below. FSRs shall NOT receive a labor rate while on R&R. The Contractor shall schedule arrangements for R&R travel. All leave must be coordinated with and approved by the PCO or COR.

C.10.4.2.3 Insurance. Defense Base Act insurance is only applicable to travel to Iraq, Afghanistan, and Kuwait.

#### C.10.4.2.4 OCONUS FSR Processing

C.10.4.2.4.1 Civilian and Contractor Deployment and Redeployment Information: Contractor personnel shall report to the designated Government deployment-processing site:

Individual Replacement Deployment Operation (IRDO) Complex Headquarters  
Building 300, Fairbanks Street

The Contractor shall provide to the Government the names of the employees deploying to the AOR no later than one week after contract award. The Contractor shall fill out the information required at Attachment 018, IRDO Personal Information Data Requirements. The Government will in turn issue a Letter of Authorization (LOA) for those employees deploying. The LOA will contain all the information that is needed to request a Call Forward and data to input information into the Synchronized Pre-deployment & Operational Tracker (SPOT) system. The Contractor is required to track their employees in the SPOT system. The FSRs shall be scheduled for processing through IRDO in Camp Atterbury, IN no later than four weeks before deploying. This schedule is subject to change based on space availability.

The website is:

<http://www.campatterbury.in.ng.mil/CivilianContractorDeploymentRedeploymentInfo/tabid/1101/Default.aspx>

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. For any contractor personnel determined by the Government at the deployment-processing site to be non-deployable, the contractor shall promptly remedy the problem. The contractor personnel shall notify their point of contact in the theater of their deployment to the Area of Operations (AO), movement within the AO, and their departure date from the AO. Upon completion of the employees tour, contractor personnel shall redeploy and out-process through the Government deployment-processing site.

C.10.4.2.4.2 Transportation to/from CRC. The Contractor shall provide transportation for their personnel from point of origin to CRC, Ft. Benning, GA and return, except for the initial and final trips. The Government will provide transportation from CRC to the area of operation (theater) and return upon completion on the mission. If Government travel is unavailable, travel for these trips will be negotiated.

#### C.10.4.2.5 Living Conditions

C.10.4.2.5.1 Housing. The Government will provide housing for Contractor employees at OCONUS locations in which contingency operations are being conducted, except Kuwait.

C.10.4.2.5.2.2 Subsistence. Contractor employees will be provided Government subsistence which includes meals, billeting, emergency medical care, emergency dental care, and access to morale and welfare activities and available chaplains as authorized in the LOA or elsewhere in this contract. If subsistence changes during deployment (e.g. the Combatant Commander or subordinate Commander changes the authorizations), the Contractor must notify the Contracting Officer.

C.10.4.2.6 Support and Force Protection. As OCONUS performance for this effort will be located in various locations in contingency operations, the PM CE/MHE is identified as the entity that will provide all support for the FSRs, including routine medical and dental care, transportation between bases and airport locations, billeting, security and logistical needs to support this effort. The Government will not provide a vehicle for use within an installation. While performing duties IAW terms and conditions of the contract, the Service Theater Commander will provide force protection to the Contractor employees commensurate with that given to Service/Agency

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(e.g. Army, Navy) civilians in the operations area.

C.10.4.2.7 Relocation/Evacuation. The Government may, at its discretion, relocate personnel (who are citizens of the United States, aliens in resident in the United States, or third country nationals, not residents in the host nation) to a safe area or evacuate them from the area of operations as required by the operational situation. The U.S. State Department has responsibility for evacuation of non-essential personnel.

C.10.4.2.8 Contractor Memorandum of Understanding for Deployed Employees. The Contractor shall ensure that each employee hired by or for the Contractor (including subcontractors) acknowledges in writing that they understand the danger, stress, physical hardships, and field living conditions that are possible if the employee deploys in support of military operations. The Contractor shall ensure that contents of this paragraph are included in all subcontracts.

C.10.4.2.9 Security Background Check. Due to further force security issues and concerns in theater, many commands are asking for verification of the status of our Contractors security background. As a result, the Contractor must maintain a completed background check on file for each employee that will be deployed.

C.10.4.2.10 Medical Information

C.10.4.2.10.1 Physical Requirement. Prior to deployment, the Contractor shall ensure that all deployable personnel are medically and physically fit to endure the rigors of deployment in support of a military operation. Contractor employees who fail to meet medical or fitness standards, or who become unfit through their own actions, will be removed from the area of operations and replaced at the Contractors expense. Medical or fitness standards can be found at [://www.infantry.army.mil/crc/](http://www.infantry.army.mil/crc/). All personnel must have a complete set of immunizations and inoculations for entry into the deployment location.

C.10.4.2.10.2 Medications. Deploying Contractor employees shall carry with them a 90 day supply of any medication they require. Military facilities will not be able to replace many medications required for routine treatment of chronic medical conditions such as high blood pressure, heart conditions, asthma, and arthritis. Contractor employees will review both the amount of the medication and its suitability in the foreign area with their personal physician and make any necessary adjustments prior to deployment.

C.10.4.2.10.3 Eyeglasses. If glasses are required, the Contractor employees will deploy with two pairs of glasses and a current prescription. Copies of the prescription will be provided by the employee to the CRC so that eyeglass inserts for use in a compatible chemical protective mask can be prepared. (USMC)

C.10.4.2.10.4 Medical Screening. The Government does require a medical screening at the CRC for FDA approved immunizations, which shall include DNA sampling.

C.10.4.2.11 Additional Deployment Information

C.10.4.2.11.1 Chemical Defensive Equipment (CDE) Training. The Government shall provide the Contractor employees with Chemical Defensive Equipment (CDE) familiarization training commensurate with the training provided to Department of Defense civilian employees. The training and equipment will be provided at the CRC for employees traveling from CONUS.

C.10.4.2.11.2 Isolated Personnel Report and Survival Evasion Resistance Escape (FPI/SERE). The Government shall provide the Contractor employees with the necessary Isolated Personnel Report (ISOPREP) and Survival Evasion Resistance Escape (FPI/SERE) training. This training will be conducted at the CRC.

C.10.4.2.11.3 Identification Tags, Geneva Convention and Common Access Cards. The Contractor shall ensure that all deploying individuals have the required identification tags and cards prior to deployment. In addition to the DD FM 489 (Geneva Convention Card) issued at the point of deployment, all Contractor employees will be issued personal identification tags and Common Access Cards (CAC), if available before deployment. Personal identification tags will include the following information: full name, social security number, blood type, and religious preference. Contractor employees will maintain all issued cards and tags on their person at all times while OCONUS. These cards and tags shall be obtained through CRC, and shall be promptly returned to the Government upon redeployment.

C.10.4.2.11.4 VISAs. The Contractor shall ensure that their employees obtain any appropriate VISAs before they will be allowed to enter IRDO.

C.10.4.2.11.5 Organizational Clothing and Individual Equipment. Contractor employees accompanying the force are not authorized to wear military uniform, except for specific items required for safety and security. The Combatant Commander, subordinate Joint Force Commander (JFC), or Army Force (ARFOR) Commander may require that Contractor employees be issued and be prepared to wear Organizational Clothing and Individual Equipment (OCIE), to include Chemical, Biological, and Radiological Element (CBRE) and High-Yield Explosive defensive equipment, necessary to ensure Contractor personnel safety and security. The Contractor employees shall sign for all issued OCIE to acknowledge receipt and acceptance of responsibility for the proper maintenance and accountability of the OCIE. The Contractor employees shall return all issued OCIE to the Government at the place of issue unless directed otherwise by the Contracting Officer. The Contracting Officer shall require the Contractor to reimburse the Government for OCIE lost, stolen, or damaged due to Contractor negligence or misconduct.

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C.10.4.2.11.6 Operator Vehicle Licenses. The Contractor shall ensure that deployed employees possess the required licenses to operate all vehicles or equipment necessary to perform contract tasks in the theater of operations. Before operating any military owned or leased vehicles or equipment, the Contractor employee shall provide proof of license (issued by an appropriate Governmental authority) to the unit or agency issuing the vehicles or equipment.

C.10.4.2.11.7 Firearms. Contractor employees in support of U.S. military operations are not permitted to carry personally owned firearms. Contractor employees normally shall not be armed during active military operations; however, the Combatant Commander may authorize issue of standard military side arms and ammunition to selected personnel for personal self-defense. In this case, weapons familiarization, qualification, and briefings on rules of engagement, shall be provided to the Contractor employees, completed at the CRC. Even if authorized, acceptance of weapons by the personnel is voluntary, and must also be permitted by their employer.

C.10.4.2.11.8 Employees Emergency Contact Data. Before deployment, the Contractor shall ensure that each contract employee completes at least three DD Forms 93, Record of Emergency Data Card. One completed form is for the CRC, one copy for the Armys Casualty & Memorial Affairs Operations Center (CMAOC), and one copy for the Army Materiel Command (AMC) Logistics Support Element (LSE) Contractor Coordination Cell (CCC) or other designated liaison.

C.10.4.2.11.9 Next of Kin (NOK) Information. As Executive Agent for mortuary affairs, the Army will facilitate the notification of Next of Kin (NOK) in the event that a U.S. citizen Contractor employee accompanying the force OCONUS dies, requires evacuation due to injury, or is reported missing. The Department of the Army will ensure that the Contractor notifies the employees primary and secondary NOK. In some cases, an Army notification officer may accompany the employers representative. Notification support by the Army is dependent upon each Contractor employee completing and updating as necessary, the DD Form 93, Record of Emergency Data Card. The Contractor is responsible for the evacuation of Contractor employee remains from Kuwait.

C.10.4.2.11.10 Employees Health and Life Insurance. The Contractor shall ensure that health and life insurance benefits provided to its deploying employees are in effect in the theater of operations and allow traveling in military vehicles.

C.10.4.2.11.11 Letter of Agreement (LOA) for Deployed Contractor Employees. Unless prohibited by international agreement, the Contracting Officer shall provide a LOA for deployed Contractor personnel. This is the document Contractor employees must carry with them as authorization for use of Government transportation, medical facilities, billeting, and other entitlements. Contractor employees are not authorized to use Invitational Travel Orders.

C.10.4.2.11.12 Contractor Employee Personal Conduct. The Contractor shall at all times remain responsible for the conduct of its employees. The Contractor shall promptly resolve to the satisfaction of the Government, all Contractor employees performance and conduct problems identified by the Government. Failure to correct such problems may result in the Government directing the Contractor, at the Contractors own expense, to replace and, where applicable, repatriate any employee who fails to comply with this language to adhere to instructions and general orders issued by the Combatant Commander or his/her designated representative. Such action may be taken at the Governments discretion without prejudice to its rights under any other provision of this contract, including the Termination for Default Clause.

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## PACKAGING AND MARKING

## D.1. Preservation and Packaging

D.1.1 The Army Light Capability Rough Terrain Forklift (LCRTF) including any attachments, special purpose kits, BII, COEI and ISK shall be processed to the level of protection specified in the Delivery Order.

D.1.2 All software, technical data, reports, and contractual documentation delivered under this contract shall be preserved and packaged to deter theft and assure safe arrival at destination without damage to contents.

D.1.3 Contractor shall preserve and package all spare and reparable items IAW the approved packaging data as generated and submitted by the Contractor and approved by the Government.

D.1.4 Consumable items, Training Aids, System Support Packages (SSP) and Special Tools scheduled for shipment shall be preserved and packaged by the Contractor to provide physical and mechanical protection, provide multiple handling, shipment by any mode, placed into storage for a period of one year in an enclosed environmentally controlled facility and suitable for redistribution without additional repackaging. Item shall be free of dirt and other contaminants. Coatings and preservatives applied to an item are not considered contaminants. Components susceptible to corrosion or deterioration shall be provided protection by means of preservative coatings, volatile corrosion inhibitors, desiccants, water proof and/or water vapor proof barriers. Components requiring protection from physical and mechanical damage shall be protected by wrapping, cushioning, pack compartmentalization, or other means to mitigate shock and vibration to prevent damage during handling and shipment.

D.1.4.1 In addition to Paragraph D.1.4 requirements, each item must comply with the regulations of the dedicated freight carrier used and shall provide safe delivery to destination at the lowest possible tariff cost. Any wood material used in the fabrication of Contractors generated ISP packaging design must comply with requirement outlined in Paragraph D.1.5.

D.1.5 For each hazardous material item shipped under this contract, a copy of the Material Safety Data Sheet (MSDS) shall be placed into a sealed pouch and attached to the outside surface area of the Unit Container and Intermediate Container containing the prescribed hazardous material item. The contractor shall comply with the applicable codes and standards listed here: (1) Code of Federal Regulation Titles 29, 40 and 49, (2) International Maritime Dangerous Goods Code, for vessel transport, and (3) AFMAN 24-204, Preparing Hazardous Materials for Military Air Shipments.

## D.2 Marking

D.2.1 The Army LCRTF shipped through the military distribution system or by commercial carriers shall be marked and labeled IAW MILSTD-129 Revision P (4).

D.2.2 All software, technical data, reports, etc. and contractual documentation referenced in Paragraph D.1.2 shall be identified by the prime contract number, name and address of the prime Contractor, and where applicable, the name and address of the subcontractor generating the data.

D.2.3 Each Non-manufactured wood box, pallet and dunnage shall be marked to show the conformance to the International Phytosanitary Measure-15 (ISPM-15). The quality mark shall be placed on both ends of the outer packaging, between the end cleats or end battens; on two sides of the pallet. Wood used as dunnage for blocking and bracing shall be ordered with ALSC certified markings or the markings may be applied locally at two foot intervals.

## D.3 Load, Block and Brace

D.3.1 Damage that occurs to any unit during departure from the Contractor's facility until final acceptance shall be repaired and replaced by the Contractor at no cost to the Government. Contractor shall be liable for payment of any damage to unit caused by the failure to load, block, and brace IAW acceptable standards set forth herein.

D.3.2 Shipments of units by rail shall be blocked and braced IAW the Association of American Railroads by the Contractor. Shipments for which the Association of American Railroads has published no such standards, shall be blocked and braced IAW standards established by the shipper as evidenced by written acceptance of an authorized representative of the carrier.

D.3.3 For truck transportability, the Contractor shall load, block, and brace the unit onto a designated carrier in accordance with standard commercial freight (truck) practice.

D.3.4 For surface vessel shipments, unit shall be preserved, packaged, loaded, blocked and braced IAW the Contractor's standard practice and meet the International Maritime Organization (IMO) International Maritime Dangerous Goods (IMDG).

D.3.5 For air transport, Contractor shall load, block, and brace components or subassemblies onto a designated military transporter or

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commercial air cargo freight carrier in accordance with the International Air Transport Association (IATA).

**Name of Offeror or Contractor:** KALMAR RT CENTER LLC**E.1 WELDING PROCEDURES/INSPECTION/WELDER CERTIFICATION**

E.1.1 Welding Design. The Contractor in performance of this contract shall ensure that all steel and aluminum weldments meet the latest edition of design and fabrication requirements in American Welding Society (AWS) D1.1 and AWS D1.2; AWS D1.3, Structural Welding Code-Sheet Metal (DoD Adopted); AWS D14.3, Specification for Earthmoving and Construction Equipment, or approved equivalent.

E.1.2 Welding Procedures & Weld Repairs. Prior to manufacturing, the Contractor shall prepare welding procedures IAW American Welding Society (AWS) weld code requirements. The use of pre-qualified weld joints as specified in AWS D1.1 does not preclude submittal of welding procedures. Repair welding of defective parts shall require Government approval and a written procedure identifying proper technique and approach to correct defective product.

E.1.4 Welder Qualification. Before the Contractor or the Contractor's suppliers assign any welder or welding operator to perform manual, semi-automatic or automatic welding work, or use any automatic welding equipment for work covered by this contract, the Contractor shall ensure that all welding equipment to include gauges and meters used in the performance of this contract has been certified, and that the Contractor's welders or welding operators have passed qualification testing, as prescribed by the applicable qualification standard.

**E.1.5 Visual Weld Inspection.**

E.1.5.1 Welding Inspectors. During performance of this contract, the Contractor shall verify weld quality and workmanship using qualified inspectors trained to perform these inspection functions. The Contractor shall make available all personnel qualification records upon request by the Government. The inspectors must meet the requirements below:

(a) Certified in accordance with American Welding Society (AWS), Certified Welding Inspector (CWI), qualified and certified in accordance with provisions of AWS QC1, Standard for AWS Certified Welding Inspector; or

(b) Welding inspectors qualified by the Canadian Welding Bureau (CWB) to Level II or the Level III requirements of the Canadian Standards Association Standard W 178.2 Certification of Welding Inspectors; or

(c) AWS Certified Associate Welding Inspector under the supervision of a CWI or a CWB Level III; or

(d) A welding inspector certification program that is substantially the same as offered by AWS or CWB. In this case, the inspector certification program must be reviewed and approved by a Government CWI or equivalent Quality Assurance Representative prior to approval; or

(e) Inspection performed by a Welding Engineer who is competent in the use of weld inspection techniques and equipment, on the basis of formal training, experience, or both, in metals fabrication, inspection, and testing. In this case, the rules that apply for experience as specified for a CWI will apply.

E.1.5.2 Visual Weld Acceptance Criteria. Prior to Nondestructive testing, all weld quality shall pass visual inspection IAW the applicable AWS code titled "Quality of Welds, Visual Inspection." The acceptance criteria differ based on the design loads. The Contractor's design engineer shall state what joints are critical load-bearing members and clearly identify these weldments for inspection purposes. In the case of critical structures, the visual acceptance criteria for Bridges will be used as stated in AWS D1.1 and Class II structures for Aluminum welds IAW AWS D1.2.

E.1.6 Nondestructive (NDT) Inspection. The Contractors design engineer shall clearly identify all critical joints required for NDT other than visual inspection. Procedures shall be made available upon request by the Government.

E.1.6.1 Nondestructive Inspector. When NDT is required, the NDT inspector shall be qualified IAW the current addition of American Society for Nondestructive Testing Recommended Practice No. SNT-TC-1A. Only individuals qualified for NDT LEVEL I and working under the NDT LEVEL II or individuals qualified for NDT LEVEL II may perform nondestructive testing except visual examination. The NDT personnel need not be an AWS CWI. The Contractor shall make available all NDT personnel qualification records upon request by the Government.

E.1.6.2 Nondestructive Testing Acceptance Criteria. When NDT is required, the acceptance criteria shall be as stated in the applicable code. The acceptance criteria differ based on the design loads. The Contractor's design engineer shall state what joints are critical load bearing members and clearly identify these weldments for inspection purposes. In the case of critical structures, the acceptance criteria for Bridges will be used as stated in AWS D1.1 and Class II structures for Aluminum welds IAW AWS D1.2

E.2 Inspection. Government representatives shall be permitted to witness any and all examinations and tests performed by the Contractor under this contract.

**E.3 Testing**

The contractor shall deliver four units for testing. Production Verification Test (PVT) shall consist of both a Contractor part (PVT-C)

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and a Government part (PVT-A). These tests will be conducted in accordance with Section E & Section 4 of the PD. For contractual purposes, PVT-C and PVT-A are equivalent to First Article Test as governed by FAR Clauses 52.209-3 and 52.209-4, respectively. FAT approval, per FAR clauses 52.209-3 and 52.209-4, requires successful completion of both Contractor and Government testing. The Contractor's tests and inspections shall be conducted in accordance with Section 4, Table I of the PD, Section E.4 and FAR clause 52.209-3. The Government's tests and inspections shall be conducted in accordance with Section 4, Table II of the PD, and FAR 52.209-4. The Contractor shall ship the test units from its facility to the Governments test site and back at its own expense.

**E.4 PVT-C**

E.4.1 The Contractor shall correct any deficiency detected during the Contractors examination and testing prior to delivery of the vehicles to the Government test site(s) for the Government PVT at no cost to the Government. Government acceptance of the PVT vehicles for test shall not imply that the vehicles meet the performance requirements as specified in Section 3 of ATPD-2392. The requirement for the Contractor to correct the deficiencies shall not excuse the Contractor from meeting the required delivery schedule. The Contractor shall not deliver any vehicle for Government PVT testing without successfully completing the above requirements. After successful completion, and approval from the PCO, the Contractor shall deliver four each LCRTFs at Contractors expense to specified Government test sites for the Government portion of the first article PVT.

E.4.2 In accordance with FAR 52.209-3, the Contractor shall submit a FAT report. The report shall include actual test data, record of inspections, certifications and any other information necessary to prove the Contractor portion of the FAT has been successful in accordance with Table I in Section 4 of the PD.

**E.4.3 Certification Requirements**

The Contractor shall prepare certifications for items identified in the PD. Certifications shall include all documentation, objective evidence, examinations and test results where applicable. Certification of compliance to specific contract and/or specification requirements shall be a statement to the effect that the Contractor has complied. Certifications shall be complete and available to the Government for review at the time of the PVT. Subcontracting does not relieve the Contractor of providing the required certification information from either the subcontractor or their manufacturers (or distributors). If any certification is unacceptable to the Government, the Contractor shall conduct additional examinations/tests or provide additional documentation as required to validate the certification, at no increase in contract price. Provisions on acceptable certifications are identified in the purchase description.

**E.4.4 First Article Shipment**

Under no circumstances shall any test system be shipped from the Contractors facility to the test site until:

- a. A complete inspection has been performed by government personnel, representing the ACO and the CO at the procuring activity;
- b. All deficiencies revealed by the government inspection have been corrected by the contractor and approved by the Government.

**E.5 PVT-A**

The Contractor shall deliver four each LCRTFs within 160 calendar days from the date of this contract to the following addresses for first article/production verification testing:

Three each LCRTFs to Aberdeen Test Center (ATC), Aberdeen, Maryland.

One each LCRTF to prime Contractor or Logistics SubContractor if any, for logistics development.

The shipping documentation shall contain this contract number and the Lot/Item identification.

The shipping location of these systems will be determined at a later date. Upon completion of all testing, the Contractor shall ship these systems back to its facility at its expense for refurbishment in accordance with E.10, if required.

b. The PVT-A will be in accordance with Section 4, Table II of the PD.

c. If the system fails the Government test, the Contractor shall make all necessary changes to the failed system or select additional systems for retesting. All costs related to retesting are to be borne by the Contractor. The Government reserves the right to require an equitable adjustment of the contract price for any extension of the delivery schedule, or for any additional cost to us related to retesting.

d. The Contractor shall produce both the first article test/production verification test systems and production systems using the same production processes at the same facility.

**E. 6 Quality Conformance Inspection.**

The Contractor shall perform a Quality Conformance Inspection on each production vehicle to ensure the item meets specification requirements prior to acceptance by the Government. Quality Conformance Inspection shall include all examinations and tests identified in ATPD-2392, Table III, Quality Conformance Testing & Examinations for Production Vehicles. Inspection records shall include a description of the inspection procedure, sequence of inspections, vehicle identified by unique identification number, date of inspection, and clear indication that the vehicle passed or failed inspection. If failed, a detailed note shall be added to the

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Inspection record by the contractor fully describing all actions taken to correct the failure. The contractor shall then repeat the previously failed Quality Conformance inspection procedure and document the results on the Inspection record. Quality Conformance Inspection records shall be provided to the Government representative upon request.

**E.7 MANUFACTURING STANDARD**

Notwithstanding the language at FAR 52.209-3, the Contractor shall keep a representative testing vehicle at the manufacturing facility as a production standard. The Contractor shall maintain the vehicle in a serviceable condition and representative of the approved product configuration baseline for the time it is used as a production standard and it shall be the last item shipped on the contract. A representative testing vehicle is one that has the most current updates, modifications or changes.

**E.8 INSPECTION COMPARISON TEST**

a. The Government may select any production vehicle(s) for test at any time during the contract production period and subject this test vehicle(s) to any and all examinations and tests specified in ATPD-2392, paragraph 4. The Government will perform the examinations and tests at a site selected by the Government. The Government will select the test vehicle(s) at random from those that have been accepted by the Government but will not include the previously accepted PVT vehicles.

b. Failure of the inspection comparison test vehicle(s) to meet any requirements specified shall be cause for rejection of the inspection comparison vehicle(s) and may be cause for the Government to refuse to continue acceptance of production vehicles until sufficient evidence has been provided by the Contractor that acceptable corrective action has been taken to eliminate the deficiency. The Contractor shall correct deficiencies in both the test vehicle and all previously produced vehicles at no increase to the contract price.

c. During the period of testing, the Contractor shall be liable to replace F.O.B. at the test site, those parts which fail to satisfactorily perform their function during test. If the Contractor fails to furnish parts within 48 hours after notification, the failure may be cause for refusal by the Government to continue acceptance of production units.

d. The inspection comparison test vehicle(s) which successfully complete the inspection comparison test, may be returned to the Contractor's plant, at Government transportation expense, for refurbishing by the Contractor. The cost of refurbishing the vehicle(s) shall be negotiated and agreed to by the parties.

**E.9 DEFINITION OF FAILURE**

E.9.1 Failure for the purpose of First Article Testing/Production Verification Testing is defined as any incident resulting in:

- (1) Inability of the end item to meet all requirements of Section 3 of ATPD-2392, Attachment 1; or
- (2) Any item, part, assembly, or subassembly on the end item that does not function or operate as it is designed or intended; or
- (3) Damage to the item by continued operation not chargeable to operator error; or
- (4) Personnel safety hazard.

E.9.2 A deficiency is defined as a condition that lacks an essential quality or element and may be used synonymously as a failure.

E.9.3 In the event of a vehicle/component test failure, the Government reserves the right to have the Contractor retest the vehicle/component upon correction of the failure by the Contractor to the complete extent and duration specified in the test program, or to such lesser extent as the PCO shall consider appropriate in his/her sole discretion. The Contractor shall be responsible for delays in the program test period resulting from vehicle/component failures and for failing to adequately or timely furnish parts support. The Government shall have the right to extend the specified program test period accordingly at no increase in contract price.

E.9.4 The Contractor, when directed by the PCO or COR, shall correct on-site any failure of the system, which occurs during testing. Delays caused by defective test items shall not be a basis for adjustment of the contract delivery schedule or the contract price.

E.9.5 Failures found during or as a result of Production Verification Testing shall be prima-facie evidence that all vehicles/components already produced prior to completion of First Article are similarly deficient. Such deficiencies on all vehicles/components shall be corrected by the Contractor at no additional cost to the Government. Failure for the purpose of Production Verification Testing is defined as any incident resulting in noncompliance with applicable specification performance requirements, or reduced item performance or interruption of test.

**E.10 Refurbishment**

After successful completion of both PVT-A and PVT-C, the Contractor shall transport the test vehicles from the test site and its facility or the logistics subcontractors facility (as applicable) to the contractors plant at the contractor's expense. The Contractor

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shall thoroughly inspect the vehicles and submit a proposal to make whatever repairs are necessary to return them to like new condition. The refurbishment effort will not include any configuration changes required as a result of testing. These changes are the contractor's responsibility pursuant to the testing provisions set forth in section E of the contract.

## SECTION F

## DELIVERIES OR PERFORMANCE

## F.1 DELIVERY SCHEDULE FOR PRODUCTION VEHICLES

(1) For all delivery orders which are issued prior to Government approval of First Article Test/Production Verification Test vehicles, delivery of production vehicles will begin 180 days after FAT/PVT approval, unless otherwise negotiated by the parties.

(2) For any delivery order which is issued after the Government approval of FAT, deliveries shall start 180 days after the delivery order is issued if the Contractor has completed deliveries on all previous delivery orders. If the Contractor has not completed deliveries on all previous delivery orders, delivery shall begin at the end of the last order. It is estimated that no less than 25 each and no more than 100 each vehicles shall be delivered monthly.

(3) Unless otherwise agreed at delivery order issuance, quantity limitations shall be in accordance with clause 52.216-19, Order Limitations.

(4) Acceleration of delivery orders is NOT acceptable without written approval from the Contracting Officer.

## F.2 DEFINITION OF DAC

For all data and hardware deliveries, "Days After Contract Award (DAC)", applies to the date specific delivery orders are awarded, not the date the basic contract is awarded. For example, if we issue a delivery order six months after the basic contract is awarded, the FAT vehicles and the associated data are due according to the timeframe established in the contract, starting at the date of the delivery order.

## F.3 LCRTF STORAGE:

(1) The Government may require the Contractor to store and maintain the LCRTFs that the Government has shipped in place. Shipped in place means the LCRTFs remain at the Contractors facility waiting for Government authorization to transport to the assigned destination. The Government has already inspected and conditionally accepted the LCRTFs. The Contractor shall take the LCRTF to the storage location, place it in storage and complete any re-inspection that may be required during storage.

(2) This storage requirement applies for up to 60 days after acceptance of the LCRTFs. Should the LCRTFs remain in storage beyond the initial 60 days, the Contractor shall receive an additional storage fee based upon a daily storage rate per LCRTF per day on a Firm Fixed Price basis.

(3) The Contractor shall maintain the LCRTFs in accordance with its standard commercial procedures to preclude deterioration of the LCRTFs and all of their components. The Contractor shall submit the procedures for storage to the PCO no later than 180 DAC and maintain a log for all LCRTFs placed in storage. The log shall include: the LCRTF serial number, the date it was placed in storage, the dates maintenance and exercise are performed, deficiencies detected during the post-storage examination, and the date the LCRTF is removed from storage. The Contractor shall make the log available to the Government upon request.

(4) The Government may re-examine the stored LCRTFs prior to shipment and the Contractor shall perform the run-in tests in accordance with the PD. The Government may perform a visual examination of the LCRTFs for deterioration, damaged parts, and evidence of mechanical problems. The Contractor shall correct all deficiencies detected during the re-examination at its own expense. The provisions of the contract entitled Government Property Fixed Price shall apply to this and all Government property while in possession of the Contractor.

(5) The Contractor shall remove the LCRTFs from storage and ship them in the same chronological order that they were placed in storage (i.e., first in, first out). LCRTFs shall be prepared for shipment at the level of preservation stipulated in the delivery order and developed in compliance with section C.

(6) If the Contractor must store LCRTFs because of its failure to provide timely and accurate logistic data and LMI requirements, or for any other reason that is not the Governments fault, the Contractor shall store the LCRTFs at no cost to the Government.

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## SPECIAL CONTRACT REQUIREMENTS

## H.1 Contractor Responsibility For Timely Delivery of Logistics Data

Acceptance of hardware end items will not proceed until the Contractor fully complies with all logistics data requirements under the contract necessary to complete a full AR 700-142 Material Release. The Contracting Officer has the unilateral right to extend the LCRTF delivery schedule of the LCRTF at no cost to the Government by the period of time equal to any delay in delivery of logistics data or information. During this delay period, the Contractor shall store all LCRTF produced at no additional cost to the Government.

## H.2 Ordering Year

For purpose of defining ordering year the first ordering year begins with the date of award of this contract. The remaining ordering years commence on the anniversary date of the initial contract award.

## H.3 Other Customers

This contract is for requirements that come through the Department of the Army. Though, the Government may use this contract to fill requirements for other Government agencies or Foreign Military Sales (FMS) customers. However, these other customers are not required to use this contract to fill their requirements.

## H.3 Export Control Notice

Technical data may be subject to the requirements of various export control statutes, regulations, etc. including but not limited to the International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations (EAR). Accordingly the Contractor is hereby notified that it must carefully consider if and how to comply with applicable export control requirements before conveying (in any manner, including but not limited to verbal, electronic, or hard copy transmission) technical data to any foreign national, whether or not such foreign national is employed by the Contractor.

## H.5 First Destination Transportation/Travel Zones

The Continental US is divided into zones for the purposes of facilitating shipping charges as follows:

Zone 1: Washington, Oregon, Idaho

Zone 2: California, Nevada

Zone 3: Montana, Wyoming, North Dakota, South Dakota, Nebraska

Zone 4: Utah, Arizona, Colorado, New Mexico

Zone 5: Minnesota, Wisconsin, Iowa, Michigan

Zone 6: Kansas, Oklahoma, Missouri, Arkansas

Zone 7: Texas, Louisiana

Zone 8: Illinois, Indiana, Ohio, Kentucky

Zone 9: Tennessee, Mississippi, Alabama

Zone 10: Maine, New Hampshire, Vermont, Rhode Island, New York, Massachusetts, Connecticut

Zone 11: Pennsylvania, New Jersey, Delaware, Virginia, District of Columbia, Maryland, West Virginia

Zone 12: North Carolina, South Carolina, Georgia, Florida.

For OCONUS shipments, the Contractor is responsible only for costs to the port of embarkation.

## H.6 Government Furnished Equipment

H.6.1 Government Furnished Equipment/Materials: The prime contractor is responsible to return all USG furnished equipment, as defined in Federal Acquisition Regulation (FAR) Part 45, clauses 52.245-1, 52.245-2, and 52.245-5, if included in the contract. Prime contractors who are not in compliance with the FAR, Defense Federal Acquisition Regulation Supplement, Department of Defense Directives and Instructions, policies, or procedures will be responsible and liable for damages to the Government property. A joint inventory shall be conducted of the equipment by the prime contractor, USG representative, and the Contracting Officer or their representative, within 10 calendar days after the end of the contract performance period. The prime contractor shall report lost, damaged or destroyed property immediately to the Contracting Officer, but no later than the joint inventory at the end of the contract period. If the prime contractor fails to report lost, damaged or destroyed equipment or materials during the contract performance period, the prime contractor shall be responsible for the replacement and/or repair of the equipment or materials. The replaced equipment shall be new, of the same quality, and shall perform at the same functional level as the missing piece of equipment. If the prime contractor fails to repair and/or replace damaged or missing equipment, the final payment shall be reduced by the appropriate amount of the specified damages or cost to replace missing equipment with new.

<b>CONTINUATION SHEET</b>	<b>Reference No. of Document Being Continued</b> <b>PIIN/SIIN</b> W56HZV-11-D-VK03 <b>MOD/AMD</b> P00015	<b>Page 29 of 29</b>
<b>Name of Offeror or Contractor:</b> KALMAR RT CENTER LLC		

H.6.2 The Government will provide the Contractor applicable GFE to support testing and logistics support package development. This GFE may consist of applicable NBC protective ensemble, extended cold weather clothing system, standard Army tool kits, and Army test, measurement and diagnostic equipment (TMDE)". These items shall be delivered and the contractor shall submit a GFE Report IAW CDRL A016.

(Removed Section with Nomenclature and NSN information)

H.7 Non-road Equipment Engine Emissions Requirements.

Environmental Protection Agency (EPA)'s Tier IV non-road exhaust emission standards require the engine manufacturers to use pollution control technologies, to include but not limited to exhaust gas recirculation (EGR), catalytic converts, NOX absorbers. These pollution control technologies are sensitive to fuel sulfur above 15 ppm and therefore are not compatible with military fuels such as JP-8/JP-5 that allow up to 3,000 ppm sulfur. Therefore, EPA has granted TACOM LCMC a National Security Exemption (NSE) from the Tier IV standards for all non-road, non-armored equipment. (Reference paragraph 3.3.22 of the PD for specific emissions requirements for the system under this contract.) The Government can and intends to transfer the NSE to the engine manufacturer, as needed, so that no vehicles delivered under this contract will have Tier IV engines. In order to perform the transfer of the NSE, the contractor shall complete the NSE transfer form by following the directions provided on the form. The form is available from the website indicated below.  
://contracting.tacom.army.mil/acqinfo/contractorforms.htm

\*\*\* END OF NARRATIVE C0001 \*\*\*