

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. Contract ID Code
Firm Fixed Price

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2. Amendment/Modification No. P00063	3. Effective Date 2013SEP25	4. Requisition/Purchase Req No. SEE SCHEDULE	5. Project No. (If applicable)
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6. Issued By U.S. ARMY CONTRACTING COMMAND JARED J. CHAMBERS WARREN, MICHIGAN 48397-5000 HTTP://CONTRACTING.TACOM.ARMY.MIL EMAIL: JARED.CHAMBERS1@US.ARMY.MIL	Code W56HZV	7. Administered By (If other than Item 6) DCMA ATLANTA 2300 LAKE PARK DRIVE, SUITE 300 SMYRNA GA 30080	Code S1103A
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8. Name And Address Of Contractor (No., Street, City, County, State and Zip Code) GENERAL DYNAMICS LAND SYSTEMS -FORCE PROTECTION INC 9801 HWY 78 STE 3 LADSON, SC 29456-3802	<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-08-C-0028
	<input type="checkbox"/>	10B. Dated (See Item 13) 2007NOV02

Code 1EPH8 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)

ACRN: AM NET INCREASE: \$983,000.00

**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 checked="" 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 type="checkbox"/>	C. This Supplemental Agreement Is Entered Into Pursuant To Authority Of:	
<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) LORETTA BURSEY LORETTA.H.BURSEY@US.ARMY.MIL (586)282-8115
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 2013SEP25

CONTINUATION SHEET**Reference No. of Document Being Continued****Page 2 of 32****PIIN/SIIN** W56HZV-08-C-0028**MOD/AMD** P00063**Name of Offeror or Contractor:** GENERAL DYNAMICS LAND SYSTEMS -FORCE PROTECTION INC

SECTION A - SUPPLEMENTAL INFORMATION

Buyer Name: JARED J. CHAMBERS
Buyer Office Symbol/Telephone Number: CTA-HTM-A/(586)282-5722
Type of Contract: Firm Fixed Price
Kind of Contract: System Acquisition Contracts
Type of Business: Large Business Performing in U.S.
Surveillance Criticality Designator: A
Weapon System: Port Support and Watercraft Equipment
Contract Expiration Date: 2012NOV02

*** End of Narrative A0000 ***

1. The purpose of this modification P00063 under Contract W56HZV-08-C-0028 is to incorporate the following:
 - a. CLIN 5100AU: Buffalo Delta Log Demo has been established on the contract in the amount of \$983,000.00.
 - b. Section C: Revise Section C.3.1, Add Section C.12.17 Delta Logistics Demonstration.
 - c. Add Attachment 0042 - Delta Log Demo Plan dated 23 September 2013.
 - d. Revise Exhibit A - Contract Data Requirements to include CDRs A064, A065, and A066 which have been annotated in red.
2. All Changes/Updates to Section C have been underlined.
3. As a result of this modification, the total amount of the contract is increased by \$983,000.00 from \$515,152,979.53 to \$516,135,979.53.
4. All other contract terms and conditions remain unchanged and in full force and effect.

*** END OF NARRATIVE A0061 ***

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT										
	SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS														
5100	DELTA LOG DEMO NSN: 9999-99-999-9999														
5100AU	<p><u>DELTA LOG DEMO</u></p> <p>GENERIC NAME DESCRIPTION: DELTA LOG DEMO CLIN CONTRACT TYPE: Firm Fixed Price PRON: P116M1792T PRON AMD: 01 ACRN: AM PSC: 2355</p> <p>Period of Performance from date of award through 30 May 2014. Delta Log Demo event to begin in early January 2014 for 13 consecutive weeks. Contracting Officer Representative to notify GDLS-FP at least 30 days prior to beginning of Delta Log Demo.</p> <p>(End of narrative B001)</p> <p><u>Inspection and Acceptance</u> INSPECTION: Destination ACCEPTANCE: Destination</p> <p><u>Deliveries or Performance</u></p> <table border="0"> <tr> <td>DLVR SCH</td> <td>PERF COMPL</td> </tr> <tr> <td><u>REL CD</u></td> <td><u>QUANTITY</u></td> </tr> <tr> <td>001</td> <td>1</td> </tr> <tr> <td></td> <td><u>DATE</u></td> </tr> <tr> <td></td> <td>30-MAY-2014</td> </tr> </table> <p>\$ 983,000.00</p>	DLVR SCH	PERF COMPL	<u>REL CD</u>	<u>QUANTITY</u>	001	1		<u>DATE</u>		30-MAY-2014	1	LO		\$ 983,000.00
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001	1														
	<u>DATE</u>														
	30-MAY-2014														

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SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

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BUFFALO A2 CONFIGURATION

- C.1 STATEMENT OF WORK
- C.2 VEHICLE REQUIREMENTS
- C.3 APPLICABLE DOCUMENTS
- C.4 DATA AND SOFTWARE DELIVERY
- C.5 SYSTEM/PROJECT MANAGEMENT
- C.6 MEETINGS/CONFERENCES
- C.7 CONFIGURATION MANAGEMENT
- C.8 LOGISTICS DOCUMENTATION REQUIREMENTS
- C.9 INTEGRATED LOGISTICS SUPPORT
- C.10 TECHNICAL PUBLICATIONS
- C.11 MILITARY PACKAGING
- C.12 QUALITY ASSURANCE MANAGEMENT
- C.13 SAFETY ENGINEERING AND HEALTH HAZARDS
- C.14 MANPRINT
- C.15 HAZARDOUS MATERIALS MANAGEMENT
- C.16 EQUIPMENT CONTROL RECORD
- C.17 WARRANTY
- C.18 TRAINING
- C.19 INDIVIDUAL UNIQUE IDENTIFICATION DESCRIPTOR
- C.20 RADIO FREQUENCY IDENTIFICATION
- C.21 INTEGRATED PRODUCT TEAM
- C.22 PARTNERING
- C.23 LOGISTICS DEVELOPMENTAL PROCESS
- C.24 REQUIRED SUPPORT

C.1 STATEMENT OF WORK

C.1.1 This statement of work defines the effort required for the purchase of the Buffalo Mine Protected Clearance Vehicle (MPCV). The Buffalo MPCV is a six wheeled Blast Resistant vehicle that is capable of interrogating and classifying suspected explosive hazards, including improvised explosive devices (IEDs). The Buffalo MPCVs articulating arm with its digging/lifting attachment and camera/display monitor is used to remotely interrogate a suspected explosive hazard and allow the crew to confirm, deny and/or classify the hazard from inside the vehicle.

C.1.2 The Contractor shall manufacture and deliver the specified Buffalo MPCV, specified under Section B of this scope, which meet all the technical requirements of Army Technical Purchase Description (ATPD) Buffalo MPCV Purchase Description (ATPD 2373 MPCV), hereafter referred to as PD 2373, see Attachment 1. This scope includes both the development of the Hardware and the Logistics documentation required to support the Buffalo MPCV. This includes repairs and spare parts, and consumable and maintenance parts in support of Verification, Log Demo, Operational User Testing (OT), Demonstration Testing (DT), and all other events covered by this statement of work.

C.1.3 The Buffalo MPCV is used in complement with the Vehicle Mounted Mine Detector (VMMD) and Medium Mine Protected Vehicle (MMPV) to conduct route and area clearance operations. The Buffalo MPCV will be organic to the Clearance Company in support of the Engineer Brigade, Combat Support Brigade (Maneuver Enhancement), or Brigade Combat Team. The characteristics of the vehicle and associated subsystems are described in PD 2373.

C.2 VEHICLE REQUIREMENTS

C.2.1 The Buffalo Mine Protected Clearance Vehicle (MPCV): The contractor, as an independent entity, and not as an agent of the U.S. Government, shall furnish all engineering, test data, supporting labor, supplies, services, facilities and equipment necessary for the delivery of MPCV Systems, as required under the contract. The MPCV systems delivered under this contract shall meet all specifications and requirements as outlined in the Buffalo MPCV Purchase Description (ATPD 2373 MPCV).

C.2.2 Transportability: The Buffalo MPCV shall be fit for self-deployment on highways worldwide; and capable of being transported by rail, marine, and air modes. See ATPD 2373 paragraph 3.15.2 for specific transportability requirements. The contractor shall submit a Transportability Report with any changes reflected in the final report. Contractor shall also provide errata sheets specifying change and location (CDRL A001). The rail transport height per the Gabarit International de Chargement for rail transport listed in Transportability Requirement (3.15.2) shall be waived for the Buffalo A2 configuration.

C.2.3 System Information: The Buffalo MPCV is organic to the Clearance Company to conduct route clearance operations. The Buffalo MPCV will primarily be employed in support of the Engineer Brigade, Maneuver Enhancement Brigade or Maneuver Brigade Combat Team.

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C.2.4 The Government reserves the right to withhold payment of hardware if data deliverables are delinquent. The Contractor is responsible for ensuring that all data deliverables required in this scope are completed and accepted in order to meet the overpack requirements in paragraph C.9.1.6. The Government is aware that the first vehicles delivered under this contract for testing (qty up to 7 systems) and for the first unit equipped (qty 12 systems) will not have the TMs overpacked.

C.2.5 Use of common components and parts already existing within the Army supply system is preferred.

C.2.6 Camouflage Pattern: It is the contractors responsibility to develop and obtain approval of the camouflage pattern (CDRL A002).

C.2.7 Government Furnished Equipment (GFE): The contractor shall provide the means to handle delivery and storage of any supplied GFE equipment (CDRL A003). Government Furnished Equipment (GFE) shall be tested by Force Protection Industries Inc (FPII) to an agreed upon level as designated in the FIR. If results of this GFE test are unsatisfactory, FPII will perform a reasonable amount of diagnostic work. If the results of this diagnostic effort lead to a problem with the GFE, FPII shall document the problem in the FIR notifying DCMA of the issue. Once notified DCMA should accept this vehicle with no penalty to FPII in relation to the GFE specified in the FIR.

C.3 APPLICABLE DOCUMENTS

C.3.1 The following documents form a part of the SOW to the extent specified herein. Additional applicable documents can be found in the Buffalo MPCV Purchase Description (Section 2). While every effort has been made to ensure the completeness of these lists, document users are cautioned that they must meet all the specified requirements in Buffalo MPCV Purchase Description (cited in Sections 3 & 4), whether or not they are listed.

- Federal Motor Vehicle Safety Standards and Regulations (U.S. Department of Transportation, National Highway Traffic, Safety Administration, Safety Assurance, Office of Vehicle Safety Compliance)
- AFJMAN 24-104/TM 38-250
- AR 700-15
- AFJMAN 24-104/TM 38-250
- DLAD 4145.41/AR 750-143
- FAR 52.247-29
- MIL-STD-129
- MIL-STD-2073-1
- TITLE 49, Code of Federal Regulations, Part 100-199, Transportation
- AR 700-127 Integrated Logistics Support
- AR 750-1 Army Material Maintenance Policy
- DA PAM 700-56 Logistics Supportability Planning and Procedures in Army Publishing Directorate

C.3.2 The following documents form a part of the SOW to the extent specified herein. The listing of required documents may not be fully inclusive of all required specifications or standards required for support of logistic documentation development.

Note: The most recent versions of these documents shall be utilized Data Items can be found at:

://assist.daps.dla.mil/quicksearch/fsc_quicksearch.cfm

DATA ITEMS

DI-ALSS-81530	LOGISTICS PRODUCTS
DI-ALSS-81529	LOGISTICS MANAGEMENT INFORMATION DATA PRODUCTS
DI-ADMN-81505	REPORT, RECORD OF MEETING/MINUTES
DI-SAFT-80102B	SAFETY ASSESSMENT REPORT
DI-PACK-80120B	PACKAGING
DI-CMAN-80639C	ENGINEERING CHANGE PROPOSAL (ECP)
DI-MISC-81397	HMP REPORT
DI-ALSS-80686	SPECIAL TOOLS TEST EQUIPMENT (STTE)
DI-ILSS-80872	TRAINING MATERIALS

SPECIFICATIONS/STANDARDS

MIL-DTL-31000C	TECHNICAL DATA PACKAGES
MIL-STD-1474D	DESIGN CRITERIA STANDARD: NOISE LIMITS
MIL-PRF-49506	PERFORMANCE SPECIFICATIOIN LOGISTICS MANAGEMENT INFORMATION
MIL-STD-40051-2	PREPARATION OF DIGITAL TECHNICAL INFORMATION FOR PAGE-BASED TECHNICAL MANUAL
MIL-HDBK-1222C-1	GUIDE TO STYLE AND WORK PACKAGES FOR TECHNICAL MANUALS
MIL-STD-882D	STANDARD PRACTICE FOR SYSTEM SAFETY
MIL-STD-2073-1D	STANDARD PRACTICE FOR MILITARY PACKAGING
MIL-STD-1472F	DOD HUMAN ENGINEERING
MIL-PRF-63004D	LUBRICATION ORDERS
MIL-PRF-63002J	REQUIREMENTS FOR PREPARATION OF

MODIFICATION WORK ORDERS

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OTHER GOVERNMENT DOCUMENTS

DA PAM 700-60 DEPARTMENT OF THE ARMY SKO
DA PAM 700-21 TMDE REGISTER INDEX
AMC-P 700-25 GUIDE TO PROVISIONING
ASTM D4169 STANDARD PRACTICE FOR PERFORMING TESTING OF SHIPPING CONTAINERS
NAS 411 HAZARDOUS MATERIALS MANAGEMENT
FM 21-10 FIELD HYGIENE AND SANITATION
CFR 29, 40, 49 CODE OF FEDERAL REGULATIONS
AFMAN 24-204 HAZMAT AND GENERAL PACKAGING
QAPQ QUALITY ASSURANCE PROVISIONING GUIDANCE
INTERNATIONAL MARATIME DANGEROUS GOODS CODE
TB 750-93-1 FUNCTIONAL GROUP CODES (FGC) TECHNICAL BULLETIN
AR 750-1 ARMY MATERIAL MAINTENANCE POLICY
MIL-HDBK-502 ACQUISITION LOGISTICS
FM 3-5 NBC DECONTAMINATION
TRADOC REG 350-70 TOTAL ARMY TRAINING SYSTEM

C.4 DATA AND SOFTWARE DELIVERY

The Contractor is responsible for meeting all of the requirements defined in this contract. The Contractor shall furnish all services, materials, and the equipment required for testing, Log Demo and Verification.

C.4.1 DATA REQUIREMENTS

C.4.1.1 Data Items will be submitted in English

C.4.1.2 All e-mail will be in readable/downloadable Government compatible format.

C.4.1.3 Disks or CD-ROM.

The Contractor shall annotate all CD-ROMs with:

- Contract Number
- CDRL Number and Item (A007, MAC)
- Delivery Type (Draft, Final)
- Date
- Contractor Name
- System Name
- Unclassified / FOUO
- Distribution Statement D

C.4.2 The PCO is the approving authority for all logistics documents delivered under this contract. AMSTA-LC-GMA referenced throughout this scope refers to the guidance signed by the Buffalo MPCV Logistics Manager. All guidance provided by the Buffalo MPCV Logistics Manager will be submitted through the Government Procuring Contracting Officer (PCO). Any guidance provided by any other Government representative should immediately be brought to the Buffalo MPCV Logistics Managers attention for concurrence or rejection of the guidance. Only the Government PCO is authorized to modify or change this scope of work. The Government Contract specialist shall be included on all email submittals for documentation and tracking purposes.

C.5 SYSTEM/PROJECT MANAGEMENT

The Contractor shall provide Government personnel with in-plant access to hardware and all technical and logistics data in support of contract efforts. The Contractor shall provide copies of documents generated through the course of the contract upon request except for proprietary documents which must be reviewed on contractor premises.

C.6 MEETINGS/CONFERENCES

C.6.1 Start of Work (SOW) Meeting

C.6.1.1 Thirty (30) days after contract award a Start of Work Meeting shall be held at held at the U.S. Army Tank-automotive and Armaments Command (TACOM). This meeting will focus on contract terms and conditions, a review of all data requirements, required specifications, program schedule, test requirements and relevant logistics requirements to assure a complete understanding of the requirements. The meeting will also include a reliability meeting, a publications meeting, a provisioning guidance conference, and a new equipment training meeting. The Contractor shall make available contract administration personnel, management, engineers, and logistic support personnel as the Government deems required.

C.6.1.2 In this meeting, the Contractor shall present detailed paths/milestone graphic presentations that defines Contractor performance necessary to meet contract delivery requirements as defined in the Scope of Work. The Contractor shall provide to the Government an internal list of all functional Contractor personnel involved in this contract. This list will be updated as required to maintain accuracy. The following discussions are to be part of the Start of Work Conference:

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- Provisioning Guidance: to provide guidance to the Contractor for documenting and submitting provisioning data.
- Engineering Data for Provisioning (EDFP): During this conference, the Government will discuss all EDFP requirements.
- Publications Guidance: To review and discuss publications requirements.
- New Equipment Training Meeting: To review and discuss training requirements
- Maintenance Planning: To review and discuss operator and maintenance functions and what constitutes reparable items.
- Testing and Reliability: To review and discuss the Purchase Description and expected testing requirements.
- Other Integrated Logistics Support (ILS) issues, such as safety.

C.6.1.3 At Start of Work Meeting, the Contractor will outline the processes and data base intended for use in screening each Part Number for identification of the prime source and/or for commonality of part within the defense supply system. This may be Federal Logistics Information System (FLIS), WEBFLIS, or by batch submittal part numbers to DLIS. The Screening system used is at the discretion of the contractor and will be identified prior to SOW. The Government will, at the request of the Contractor, provide a demonstration of parts screening procedures expected throughout the Provisioning process. Guidelines and full screening requirements addressed at the Start of Work will be adhered to throughout the Provisioning process.

C.6.1.3.1 At the Start of Work meeting the Contractor will provide the Government with a complete list of major components utilized in the Buffalo and identify each component by the original source of supply, manufacturer's part number and name. This includes original commercial parts modified by the contractor for application to the Buffalo. Major assemblies to be identified at the SOW shall include but are not limited to the following:

- Engine:
- Transmission:
- Front Axles:
- Rear Axles:
- Batteries:
- Tire Assemblies:
- Tires:
- Wheels:
- Transfer Gear case:
- Starter:
- Alternator:
- Fuel Pump:
- Differential:
- Brake System:

The contractor agrees to supply this information at the SOW meeting and to allow the Government to research its legacy data for provisioning data, RPSTL artwork, maintenance procedures, lubrication instructions, troubleshooting and Preventive Maintenance Checks and Services (PMCS). If found, the above technical data will be provided to the Contractor as source data GFI for incorporation into the Buffalo ILS effort. The Contractor shall be responsible for a technical review of the GFI data to make certain system peculiarities to Buffalo are compatible and will correct incompatible details as required to accurately reflect the Buffalo equipment designs.

C.6.2 Maintenance, Provisioning, and Publication (MPP) Review: These conferences will be held at the Contractors facility unless the parties agree to move it to a different location. The first conference will be held 31 March 2009. Future MPP conferences will be scheduled as required.

The following areas will be discussed at the MPP review:

C.6.2.1 Publications Guidance: The Government will review and discuss publications requirements. The Government will look over at least one work package that the Contractor has prepared to provide clarification and guidance.

C.6.3 Provisioning Conference: Formal provisioning conferences will be held; the first Conference will be held 31 March 2009. Follow-on provisioning conferences will be held every forty-five (45) days until all data is submitted. Each conference will be a maximum of 5 working days with no less than 800 items and no more than 1500 items presented for review. The Contractor will provide the following, as necessary, to support the provisioning conference effort:

C.6.3.1 Hard copy of the Provisioning Parts list (PPL) shall be in a format acceptable to TACOM Commodity Command Standard System (CCSS) database (1552 or LSA-036 format). CDRL A013

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C.6.3.2 By the start of the conference, the contractor shall have annotated each Provisioning Line Item Sequence Number (PLISN) on the applicable EDFP.

C.6.3.2.1 EDFP shall be provided for each item appearing on the PPL, first appearance only, except for items that are documented by Government drawings, specifications or standards, or nationally recognized industry association specifications or standards. At a minimum, the technical documentation must provide the following:

C.6.3.2.2 Dimensional, material, mechanical, electrical and other descriptive characteristics.

C.6.3.2.3 Technical identification of items for maintenance of items for maintenance support consideration, to include location within its next higher assembly, i.e., internal location of an electrical component within an engine starter assembly.

C.6.3.2.4 If the drawing, commercial literature, specification or standard does not identify the location of the part within the end item, then a sketch or illustration must be attached to that specific document. The technical documentation will be provided on hardcopy and reproducible electronic format.

C.6.3.2.5 Technical Data submitted as EDFP shall be annotated with CAGEC, PCCN, PCC, and PLISN. On Engineering Drawings, the PLISN will be directly above the nomenclature. On Associated Lists, the PLISN will appear next to the item identification. When an Engineering Drawing or Associated List applies to multiple PLISNs, all PLISNs will be annotated on the Engineering Drawing or Associated List. The Engineering Drawings and Associated List will be provided in PLISN sequence to be compatible with the PPL. If commercial literature is provided, the CAGEC and PLISN will be annotated next to the appropriate manufacturer's part number. The sketch or illustration provided in support of the commercial literature, specification or standard must also have the PLISN annotated next to the specific item.

C.6.3.2.6 Provisioning conference data shall be organized in such a manner as to provision assemblies in a logical sequence. Piece / Part provisioning shall be avoided unless necessary as deemed by the Government. Submission of incomplete assemblies or incongruent part sequences may be deemed unacceptable by the Government.

C.6.4 Integrated Product Teams and Integrated Product Team Meetings. Integrated Product Teams (IPTs) shall be used in the manufacture, test, refurbishment, and management phases of this program. These IPTs shall include Government, Contractor, and Subcontractor participation. The IPT will be used as a forum for program reviews, design reviews, resolution of issues, and other contract-related items. IPT meetings shall be held at the Contractors or subcontractors facilities. IPT meetings will be held every four months or when deemed necessary by the Government. Conference calls/video conferences may suffice for IPT meetings, when appropriate. Government and Contractor will coordinate the meeting dates at least 10 working days before the IPT starts to allow for travel time.

C.6.5 Contract Status Review Conference: As part of the overall contract management effort, the Contractor shall provide technical and managerial representative(s) to attend periodic meetings, at least once per year, at TACOM, to review contract status. This review shall be for one eight-hour day, or as specified. A conference may be called by either the Government or the Contractor to clarify any questions in regard to contract requirements. Topics to be discussed shall include, but not be limited to, contract status, testing, production, logistics, technical issues, and deliverables. The Contractor will coordinate an agenda with the Procuring Contracting Officer (PCO) no later than five days prior to the meeting.

C.6.6 The Contractor shall take minutes for all meetings. The System Acquisition Manager (SAM) approved minutes shall be distributed to all parties not later than 10 days after the completion of the meeting, in accordance with CDRL A005.

C.6.7 When meetings are held at the Contractor's facility, the Contractor will make the following available for the Government's use:

- (a) Required technical, logistics or other documentation (including drawings, computer data bases, publications, and other required data)
- (b) Computer resources, as required
- (c) Access to Internet, via LAN connection
- (d) Access to a Buffalo MPCV

C.6.8 Project Planning Chart. The contractor shall submit a Progress Planning Chart in accordance with CDRL A006. The contractor shall submit one Progress Planning Chart covering all CLINs that the contractor is performing work on under the contract.

C.7 CONFIGURATION MANAGEMENT

C.7.1 CONFIGURATION MANAGEMENT (CM). The Contractor shall maintain a CM process for the control of all hardware and software configuration documentation, media, and parts representing or comprising the production vehicles. The application of the principles in the latest version of Electronic Industries Alliance (EIA)-649 shall be used to implement the technical and program management fundamentals of configuration management. The principles contained in MIL-HDBK-61 may be used for guidance. The Contractor's CM shall consist of configuration identification, configuration control, configuration status accounting, and configuration audits. Consideration for interfacing with other acquisition requirements such as design review, assurance, and other program related disciplines shall be addressed. The Contractor shall notify the Government of any changes at the Contractor's facility which affect the Contractor's established CM process. The Contractor shall document all elements of their configuration management in a CM Plan. The Government has the right, at any time, to review the plan.

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C.7.2 FUNCTIONAL AND PRODUCT BASELINE. The Contractor shall establish and document the functional and product baselines. The performance baseline shall include: applicable Performance Specification and interface control documentation.

C.7.3 CONFIGURATION CONTROL. The Contractor shall implement positive configuration control methods and procedures to maintain the integrity and traceability of the Government controlled configuration baselines.

C.7.4 ENGINEERING CHANGE PROPOSALS (ECP). All permanent configuration control changes to established baselines shall be proposed utilizing an Engineering Change Proposal (ECP) or a Value Engineering Change Proposal (VECP). All ECPs and VECPs shall be submitted in accordance with CDRL A007. All revised drawings shall be submitted in accordance with CDRL A008.

C.7.4.1 ECP CLASSIFICATION. Engineering changes shall be classified as either Class I or Class II changes. The criteria in MIL-HDBK-61A, Section 6 and Table 6-2 shall be used to determine the Class of the change. The Government will review Class II ECPs and is the final authority for concurrence of classification.

C.7.4.2 ECP CONTROL NUMBERS. The Contractor shall obtain a block of Government control numbers to be used in the preparation and tracking of ECPs and VECPs. The Contractor shall contact the Configuration Data Management (CDM) representative, USATACOM, for issuance of a block of numbers to be used by the Contractor under this Contract. The Contractor shall assign a control number to each change proposal submitted to the Government. The control number shall consist of the Contractor's assigned symbol (xxx) and the applicable TACOM-assigned five-digit alpha/numeric number. Once assigned, a control number shall not be reused, with the exception of resubmission of the original to reflect minor corrections (C1, C2, etc.) or major reworked proposals (R1, R2, etc.). The Contractor shall maintain status accounting records of where and when each ECP and VECP number was used. The justification code V shall be assigned to all ECPs submitted pursuant to the Value Engineering (VE) clause of the contract.

C.7.4.3 ECP Effectivity and Status Accounting. Changes resulting from Government-approved VECPs and ECPs shall be incorporated into production through contract modification. Actual cut-in of these changes shall be at a single end item cut-in point. Each approved change shall be applied to the production line at one time, in their entirety. The Contractor shall maintain the original effectivity point information (serial number, lot number, date, or similar identifier that allows identification of affected units) on file in the Contractors status accounting system, and supply this information to either the Governments PDM system or CDM representative. For each change, the Contractor shall document and report the corresponding serial numbers and the actual date of each cut-in, notifying DCMA prior to cut-in.

C.7.5 NOTICE OF REVISION (NOR). The Contractor shall prepare a NOR as an ancillary document to each Class I ECP in accordance with CDRL A009. The NORs shall depict specific changes to delivered engineering drawings, down to the specific paragraph level, for Government-controlled performance documentation. The Government may approve completed NORs submitted while final ECP documentation is pending. Final ECP documentation may not differ from Approved NOR documents. All drawings revised to incorporate the approved NORs shall be in accordance with CDRL A008. NORs shall be submitted with preliminary ECP Documentation.

C.7.6 REQUEST FOR DEVIATION (RFD). All requests to depart from a particular requirement of the approved baselined documentation for a specific number of units or a specified period of time shall be made by the Contractor via an RFD. An RFD shall not effect a change to any configuration documentation. All RFDs shall be submitted in accordance with CDRL A010. Submission of recurring deviations is discouraged.

C.7.6.1 RFD CLASSIFICATION. All RFDs shall be classified as either Minor or Major. The criteria in MIL-HDBK-61A, section 6.3.1.a shall be used to determine the class of an RFD. Critical deviations are not authorized as they have a profound impact on safety.

C.7.6.2 RFD CONTROL NUMBERS. The Contractor shall assign a unique number in contractor format for the preparation and tracking of all RFDs.

C.7.6.3 RFD EFFECTIVITY AND STATUS ACCOUNTING. The Contractor shall specifically designate each separate unit (or lot of units) of the configuration items that are known to be, or that will be, impacted by a proposed RFD. The Contractor shall identify all actual units impacted by an RFD by serial number, lot number, or similar identifier that allows identification of affected units, retain this information in the Contractors status accounting system, and supply this information to either the Government PDM system or CDM representative.

C.7.7 AUTOMATED CONFIGURATION MANAGEMENT SYSTEM (ACMS)/WINDCHILL. (If Applicable) ACMS/Windchill will be the Product Data Management System used for the creation and formal submission of configuration control documentation. In the event it is not applicable a documented process for ECP submittal and management shall be developed jointly by the Government and Contractor Configuration Managers and submitted for approval through the Government PCO.

C.7.8 CONTRACTOR INITIATED CHANGES. The Contractor shall not implement Class I ECPs without receiving prior Government approval. Unsolicited Class I ECPs are discouraged. However, the Contractor may submit preliminary Class I ECPs to allow evaluation of the desirability of expending resources to fully document a proposed change. Changes that impact the following areas are instances where unsolicited ECPs may be justified:

- Safety

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- Human Factors
- Interoperability
- System-level Interface/Compatibility
- Correction of Defects
- Survivability
- Security
- Product Improvements
- Technology Improvements
- Reliability and Maintainability (RAM)
- Performance
- Sustainment
- Logistic Support

The Contractor may implement Class II changes or minor RFDs without Government approval. The Contractor shall submit a monthly listing in the form of a Configuration Change List (CCL) of all Class II changes and shall include copies of all ECPs, in contractor format, that have been added since the previous monthly submittal. Monthly submittal of all Class II changes shall be provided through a single ACMS/Windchill ECP and may be combined into a single document. If the Government suspects that a Class II ECP is actually a Class I ECP, the Government will review the Class II ECP with the Contractor utilizing MIL-HDBK-61A, Table 6-2, and attempt to reach a consensus on classification before providing a disapproval vote in ACMS/Windchill. If consensus on classification cannot be reached, the Government's interpretation of the classification shall be utilized and the Contractor shall be notified by means of a disapproval vote in ACMS/Windchill Review by a designated Government representative, along with an explanation for the disapproval determination. The Contractor, in lieu of a classification change and resubmittal, may elect to retrofit all production units produced that incorporated the change, back to the currently approved Baseline, at no cost to the Government.

During First Article Testing (FAT), approval to change the test unit configuration shall be accomplished by submitting a Configuration Change Document (CCD) to the PCO in accordance with CDRL A011. A CCD shall have a signature block and title for the Contractor and shall provide an approval block for use by the Government. A CCD shall provide the following information: Contractor supplied unique control number, date of submission, complete technical description of change, reason for change, unit(s) affected by the change, list of components removed and reused, and/or new components, and Contractor primary point of contact. After FAT, the Contractor shall incorporate all CCDs that affect the Performance baseline through the formal ECP process with no increase to contract price.

C.7.9 GOVERNMENT INITIATED CONFIGURATION CHANGES. The Government shall initiate changes to the CI via a formal submittal of a Government created ECP. In addition the Government shall deliver a copy of the ECP to the Contractor through the jointly approved process and the Contract Office. The Contractor shall respond with a Rough Order of Magnitude (ROM) quote through the jointly approved process and the through the Contract and Program Management Offices. The ROM shall be a Not to Exceed (NTE) price for the development and production of the Government requested change and does not include itemization of components or individual costs. After receipt of the ROM, the Government can, at any time, issue a Request for Proposal (RFP) to the Contractor. The Contractor may submit a request through the Program Management and Contract for an NTE amount to develop the proposal. The Contractor shall respond through the jointly approved process and the Contracts Office within 30 days of receipt of the RFP or within 30 days after the approval of the NTE amount to the Government with a firm-fixed price proposal in the form of the a Contractor ECP that shall include itemized list of all labor and materials associated with the Government requested ECP. The Government shall submit a contract modification to the Contractors Contracts Office, to include the requested modification and funding for all requested modifications. Upon the Contract Modification being accepted by both parties, the Contractor shall begin development of the Government requested ECP to be completed in accordance with the schedule as quoted in the Contractors ECP.

C.7.10 CONFIGURATION STATUS ACCOUNTING (CSA). The Contractor shall establish and maintain a CSA system in accordance with CDRL A051. The purpose of the automated information system shall be to provide accurate and timely information including program management, system engineering, logistic support and maintenance/modification actions. The Contractor shall provide a complete listing of Service specific (USMC, Army, Navy, or Air Force) registration numbers that will be assigned to production vehicles delivered to the Government. The Contractor shall provide information utilizing their existing CSA system, however, if there is a Government requirement to report information outside the Contractors database or format, this information can be delivered or reported as a supplement to prevent disruption to their existing system.

C.7.10.1 CSA SERIALIZED TRACKING. The Contractor shall establish a database that captures the serial numbers of engines and transmissions installed in each production unit delivered to the Government. The Contractor shall maintain the information in a manner that allows traceability of vendor assigned serial numbers to the vehicles registration/serial number. The Contractor shall also include the following configuration items in the CSA tracking database:

- Transfer Case
- Front Axle
- Rear Axle
- Steering Gear
- Fuel Tank
- Alternator

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C.7.10.2 CSA MODIFICATION TRACKING. The Contractor shall modify the CSA database to capture field modifications or retrofit action to components reported on the CSA, accomplished by the Contractor. The Contractor shall maintain the information that allows visibility of completed actions to vehicles by Serial or Registration Number.

C.7.11 PHYSICAL CONFIGURATION AUDIT (PCA). A PCA will be conducted, after the successful completion of the FAT, to confirm the product baseline. The Government shall perform the PCA, with Contractor participation. The Government will provide the Contractor with an outline of the minimal requirements for the PCA. The Contractor shall provide a PCA Plan (refer to Section 8 of MIL-HBDK-61A) 30 days prior to the start of the audit per CDRL A011. The PCA agenda will be provided IAW CDRL A052. Corrective actions, based on the audit findings, shall be made by the Contractor within 60 days of the receipt of the audit findings.

C.7.11.1 INDENTURED BILLS OF MATERIAL (IBOM). As part of the configuration audit, the Contractor shall also deliver to the Government an Indentured Bill of Material (IBOM). Contractor format shall be used. The IBOM shall be submitted 30 days after the Government exercising the IBOM CLIN. Upon receipt of the IBOM, the Government will advise the Contractor of the items to be audited. Within 45 days of receipt of the Government comments, the Contractor shall schedule the PCA. The IBOM shall contain, as a minimum, part number, part cage code, NSN (if available), part nomenclature, quantity required, unit of measure, drawing number, drawing nomenclature, drawing revision, drawing cage code, and drawing type. Additional fields are acceptable, as long as their necessity is explained by the Contractor. The IBOM shall be prepared in indenture level sequence (the vehicle is level 1) down to the lowest component piece part level. The IBOM shall be prepared and delivered in accordance with CDRL A053. The IBOM shall be in MS Excel format.

C.8 LOGISTICS DOCUMENTATION REQUIREMENTS

C.8.1 The Contractor is responsible to update and create all logistics documentation for the Buffalo MPCV.

C.8.2 The Government requires the Contractor to submit acceptable documentation on the required due date as detailed in the applicable Scope of Work paragraphs and CDRLs. It is the Contractors responsibility to validate all documentation prior to submittal to the Government. If the Government finds that there has not been validation of data submitted, review of documentation will cease and the data submittal will not be considered for acceptance.

C.8.3 It shall be understood that Government receipt of documentation does not constitute acceptance. Government acceptance of documentation hinges on the completeness, accuracy, compatibility of submitted documentation, and the following of applicable military standards. The Contractor shall carefully review all data explained in the applicable Scope of Work paragraphs to fully understand what the Government is basing its acceptance of documentation on.

C.8.4 CORRECTION OF ERRORS.

The contractor shall correct all errors found in the TMs, ETMs, and electronic data files resulting from Government reviews, tests, or verification at no additional cost to Government.

C.9 INTEGRATED LOGISTICS SUPPORT

C.9.1. The Government requires complete ILS development, provisioning, technical publications, and special tools and test equipment list for all Buffalo MPCV systems purchased under this contract.

C.9.2. The contractor will use Military Performance (MIL-PRF) Specification 49506, Logistics Management Information (LMI), dated 11 November 1996, for use in identifying content, format, delivery and related guidance for logistics data except as otherwise identified in this contract. Also, Army Regulation (AR) 750-1, Army Materiel Maintenance Policy, dated 18 August 2003, may be used for guidance in identifying the levels of maintenance within the Army maintenance structure.

C.9.3. Maintenance Planning.

The Contractor shall conduct Maintenance Planning that determines maintainability characteristics of the Buffalo MPCV. This analysis shall be documented in the Contractors format as an LMI summary entitled Maintenance Analysis (See Attachment 2) and shall identify maintenance functions, level of maintenance, manpower, spare parts and the support equipment required. The analysis will be in End Item hardware top down breakdown, disassembly sequence with attaching hardware. It will identify Functional Group Codes in accordance with (IAW) TB 750-93-1, for each reparable item. The technical bulletin can be found at web site [://www.logsa.army.mil](http://www.logsa.army.mil). The Contractor should enter the Publications, Electronic Technical Manual (ETM) selection and request access. The LMI summary products shall be delivered in accordance with all applicable CDRLs.

C.9.4. MAINTENANCE ANALYSIS (CDRL A012)

C.9.4.1. The Contractor shall analyze the operational, maintenance and support function of the system in the identification of required operator and maintenance tasks. Maintenance of the Buffalo MPCV will be driven by the two level maintenance concept: Field and Sustainment. This analysis shall be documented in the Contractors format as an LMI summary entitled Maintenance Analysis (See Attachment 2) and shall identify maintenance functions, levels of maintenance, manpower, spare parts and the support equipment required.

NOTE: Maintenance tasks shall be designated to the appropriate Level of Maintenance in accordance with AR 750-1.

C.9.4.2. Field Level Maintenance is on-system maintenance and is mainly the replacement of defective parts and the accomplishment of preventative maintenance. Field maintenance returns repaired equipment to the soldier. It covers crew, service, and field maintenance tasks. Some off-system maintenance can be done at field level if, based on task analysis it is simple to complete or is critical to

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mission readiness.

C.9.4.3. Sustainment Level Maintenance is comprised of below depot and depot level maintenance functions. Sustainment Maintenance consists of repairing components, assemblies, modules, and end items in support of the supply system. Sustainment maintenance is characterized as off-system and repair rear. The intent of this level is to perform commodity-oriented repair on all supported items to one standard that provides a consistent and measurable level reliability. The Sustainment Level of Maintenance requires a National Maintenance Work Requirement (NMWR).

C.9.4.4. The analysis shall determine maintenance requirements, including all Preventative Maintenance Checks and Services (PMCS), based on:

- (1) Identification of components which are critical in terms of mission and operating system.
- (2) Components whose functional failure will not be evident to the operator.
- (3) Economical and/or operational consequences of failure.
- (4) Where scheduled maintenance can prevent failures.

C.9.5. PROVISIONING:

C.9.5.1. PROVISIONING PARTS LIST: (CDRL A013) It is not the intent of the Government to prescribe the Automatic Data Process (ADP) software that must be used for processing. Using cost effective ADP systems is encouraged.

C.9.5.2. Input media requirements for provisioning data: TACOM uses the Army Materiel Command (AMC) developed Commodity Command Standard System (CCSS) applications program. All submissions of Logistics Management Information (LMI)/Provisioning Parts List (PPL) data must be compatible with the Government CCSS Provision On-Line System. (POLS) All digital files are to meet the following criteria:

- a. American Standard Code for Information Interchange (ASCII)
- b. No Header Data
- c. 80 columns in width
- d. Carriage return code for line end.

C.9.5.3. Provisioning Contract Control Number (PCCN) and Provisioning Control Code (PCC) will both be furnished by the Government at the time of the Start of Work Meeting, for input by the Contractor.

C.9.5.4. Provisioning Program: The Contractor shall develop provisioning data for the Buffalo MPCV in accordance with MIL-PRF-49506, guidelines of MIL-HDBK-502, and Logistics Management Information (LMI) data worksheets found in Attachment 3.

C.9.5.4.1 Contractor will provide screened part numbers for all parts in PPL as well as vendor part numbers and MPCV OEM part numbers and shall indicate if OEM requests to be a source of supply on vendor procured parts. Contractor shall also annotate whether a part is manufactured or modified by the MPCV OEM. Contractor shall provide information pertaining to parts proprietaryly manufactured specifically for the MPCV OEM.

C.9.5.5. The provisioning data shall contain all data required to support the Buffalo MPCV:

- a. The assemblies, subassemblies, spare parts and modules
- b. Long Lead Time Items
- c. Basic Issue Items (BII)
- d. Expendable/Durable Items List (EDIL)
- e. Components of End Item (COEI)

C.9.5.6. The Contractor shall make available two hardcopies of LMI/PPL data and a hardcopy of the Engineering Data for Provisioning (EDFP) drawings at each provisioning conference.

C.9.5.7. All submissions of the LMI/PPL data must be compatible with our Commodity Command Standard System (CCSS)/Provisioning On-Line System. The data shall be capable of being loaded into our Provisioning Master Record (PMR) without any modifications to the data. CCSS has various methods by which the Contractor can deliver provisioning data and the Government will discuss these methods at the start of work meeting. Each incremental submission shall have at least 500 lines, but no more than 1500 lines. The Government prior to submission shall authorize deliveries of less than 500 lines. Each incremental submission must include at least one major assembly. All submissions will be labeled initial, changes, deletions or any combination of the three transactions. The Contractor shall correct rejections within 21 days and resubmit them electronically in ASCII text with accompanying 80/80 listing. The Contractor shall ensure that only those items that are repair parts or part of the end items top-down generation breakdown will be loaded in the PMR. The Government will reject all others.

C.9.5.8. Provisioning Screening results will be Contractor developed per CDRL A014 and will be available at each Provisioning Conference to support the level of provisioning submittal under review. The data shall be capable of being loaded into the Provisioning Master Record (PMR) without any modifications to data. No errors are allowed. All submissions will be labeled as Initial, Revised, or Final submissions.

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C.9.5.9. The Contractor will provide to the Government the Provisioning Parts List (PPL) in LSA-036 format, or 1552 hard copy medium per CDRL A013.

C.9.6 PROVISIONING SCREENING: (CDRL A014) Contractor shall conduct provisioning screening of each item on the PPL for standardization or NSN assignment. Provisioning screening using the Federal Logistics Information System (FLIS), WEBFLIS FEDLOG or by batch submittal of part numbers to DLIS. These results will be used to select valid part numbers, NSNs, and current unit of measure/issue prices for provisioning purposes. Common hardware item (nuts, bolts, screws, washers, lock washers, rivets, etc. for current NSN assignment) will be screened by technical characteristics. The screening results must be available for review by Government representative.

C.9.6.1 For additional information on FLIS and batch submittals to DLIS, refer to the Provisioning Screening User Guide. For additional information on WEBFLIS, go to .dlis.dla.mil/webflis. There are two versions of WEBFLIS: Public Query and Restricted/Sign-on. Anyone with access to the Internet may access the Public Query version. The Restricted/Sign-on version requires a valid userid/password to access the system. Userids may be obtained by filling out a registration form. The registration forms are found on the DLIS web site. After accessing the Home Page, go into the Forms and Publications section and select the registration form for WEBFLIS. There are two forms available - one for Government workers and one for Government sponsored contractors.

C.9.6.2 Design Change Notices/Engineering Change Proposals (DCN/ECP). Contractor shall submit DCN/ECP LMI Data for those design items and/or part number changes which modify, add, delete or supersede any of the Operating, Maintenance or Repair Parts Manual information that was provided previously for the MPCV system. This information shall be submitted at a maximum of 60 working days after Government ECP approval or a production change decision has been implemented. An approved ECP(s) shall be provided with each DCN submittal as applicable. Changes will be verified by the Government.

C.9.7. ENGINEERING DATA FOR PROVISIONING (CDRL A015)

C.9.7.1. Drawing Information: A separate drawing is required for each part number. Drawings are not required for items accompanied by a copy of provisioning screening (e.g. FLIS, WEBFLIS, or by batch submittal part numbers to DLIS) which indicates this item has previously been assigned a valid stock number. The Contractor shall make available drawings at each provisioning conference for Government review. After the Government approves each drawing as being suitable for NSN assignment, the drawings shall be submitted on a Compact Disk-Read Only Memory (CD-ROM) in Adobe Acrobat .PDF file, some other software product format, web based file or FTP site that the Government agrees to, with each PPL submittal. A separate file is required for each drawing. The CD-ROM or approved file shall include a cross reference list that identifies the part number, drawing number, PLISN and file name for each drawing. Drawings will have all required dimensions (metric preferred). Drawings (hardcopy and electronic) shall contain the following information:

- a. Commercial and Government Entity Code (CAGEC) (vendor & OEM)
- b. Part Number (vendor & OEM)
- c. Provisioning Line Item Sequence Number (PLISN)
- d. Provisioning Contract Control Number (PCCN)
- e. Nomenclature. For industry standard common hardware, include descriptive nomenclature. Make from items made from industry standard components shall include additional descriptive nomenclature. Examples of additional descriptive information include, at a minimum, the physical dimensions and all classifications (i.e. hardness, grade, thread type, surface finish, coatings, industry specifications and etc.). Common hardware includes nuts, bolts, screws, washers, o-rings, cotter pins, c-clips, clevis pins, lamp bulbs, etc.

C.9.7.2 Contractor will provide screened part numbers for all parts on EDPF as well as vendor part numbers and MPCV OEM part numbers and shall indicate if OEM requests to be a source of supply on vendor procured parts. Contractor shall also annotate whether a part is manufactured or modified by the MPCV OEM. Contractor shall provide information pertaining to parts proprietarily manufactured specifically for the MPCV OEM.

C.9.8. LEVEL OF REPAIR ANALYSIS (LORA)

The Contractor shall conduct the LORA for the Buffalo MPCV. This analysis shall determine the maintenance level at which the item should be repaired or replaced. The Contractor shall include economic and non-economic criteria in this analysis. Non-economic criteria that could impact the level of maintenance decision include, but are not limited to: manpower and personnel implications, support equipment and facilities available, and the maintenance concept. Results of this analysis shall be used to develop the Maintenance Allocation Chart (MAC).

C.9.9. MAINTENANCE ALLOCATION CHART (MAC) (CDRL A016)

C.9.9.1. The Contractor shall submit the MAC in accordance with MIL-STD-40051-2. The MAC is a living document that forms the basis for provisioning and technical manual development. It is, therefore, subject to changes throughout the life of the contract. Its final approval will be concurrent with final TM approval for the Field Level Maintenance Manual. Submittal shall consist of CD-ROM, PDF format. The MAC shall identify the maintenance functions that must be performed, the maintenance levels responsible for the function, the active service time, tools and test equipment necessary to perform the function, for each assembly, subassembly, and component in Functional Group Code sequence. The MAC shall include all maintenance significant components, assemblies, subassemblies and modules. No item will be deleted from the MAC unless the contractor is specifically authorized. If a maintenance function is a replacement function only for a repair part, the item shall not be listed in the MAC, unless not listing the item would result in deletion of the group number. In this case, the item shall be listed in order to retain the functional group number. Items requiring a test procedure before replacement shall also be listed on the MAC.

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C.9.9.2. See Attachment 12 for an example of the MAC header with the Army's two levels of maintenance incorporated.

C.9.9.3. The final MAC will be prepared in accordance with the format specified in MIL-STD-40051-2. The MAC shall include all maintenance significant components, assemblies, subassemblies, and modules. Parts requiring a test procedure prior to replacement shall also be listed in the MAC.

C.9.10. LONG LEAD TIME ITEMS (LLTI) (CDRL A017)

C.9.10.1. The Contractor shall provide a Long Lead Time Items List (LLTIL), containing items, that because of their complexity of design, complicated manufacturing processes or limited production capacities, may cause extended production of procurement cycles beyond three months, resulting in untimely and inadequate delivery, if not ordered in advance of normal provisioning.

C.9.10.2. Items identified on the LLTI shall contain the following: Item name, level of maintenance, NSN (if applicable), description, CAGE, part number, quantity required, unit price, PLISN and production lead-time.

C.9.10.3. The LLTI list will be reviewed and approved by the Government prior to final acceptance.

C.9.11. BASIC ISSUE ITEMS (BII) LIST (CDRL A018)

The Contractor shall provide a Basic Issue Items (BII) List. BII are those items identified as essential for an operator or crew to place the Buffalo MPCV into initial operation to accomplish its defined purpose. These items are essential to perform emergency repairs which cannot be deferred until completion of an assigned mission and routine maintenance. The BII are not listed on the engineering drawings. The BII includes those selected common and special purpose tools, TMDE, spare and repair parts, Operator publications, first aid kits, and safety equipment (for example fire extinguishers) authorized for the Buffalo MPCV. Although spare and repair parts are not normally included in BII, exceptions may be made to meet the criteria above. The Contractor shall over pack those items with each Buffalo MPCV.

C.9.12. EXPENDABLE AND DURABLE ITEMS LIST (EDIL) (CDRL A019)

This list defines the expendable/durable supplies and materials required for operating and maintaining the End Item. The minimum requirements for each submittal are the following: Item Number, Level, National Stock Number, Description, Commercial and Government Entity Code (CAGE), Part Number and Unit of Issue (UI). Final submittal of the Expendable and Durable Items List (EDIL) shall be in the format as depicted in MIL-STD 40051-2 and included in the applicable section of the final submission of the Department of the Army (DA) Technical Manual.

C.9.13 COMPONENT OF END ITEM (COEI) LIST (CDRL A020)

The Contractor shall provide a Component of End Item (COEI) List. These items are part of the End Item that must be with the End Item whenever it is issued or transferred between property accounts. COEI are removed and separately packaged for transportation. All major components of the Buffalo MPCV will be identified and described in the appropriate Buffalo MPCV operators manual. In addition, any component identified on the engineering drawing that is physically separate and distinct and that must be removed from the Buffalo MPCV and separately packaged and stored for transportation will be separately listed by NSN in a table as an appendix in the operators manual. The Contractor shall over pack those items with each Buffalo MPCV.

C.9.14. SPECIAL TOOLS AND TEST EQUIPMENT LIST (STTE) (CDRL A021)

C.9.14.1 Support Equipment Tools and Test Equipment (STTE). The contractor shall deliver a list of Support Equipment Tools and Test Equipment. The list shall be in tabular form and shall identify special tools and test equipment not contained in U.S. Army Supply Catalogs. Supply Catalogs contain common tool sets and are listed at US Army LOGSA web site at [://weblog.logsa.army.mil/sko/index.cfm](http://weblog.logsa.army.mil/sko/index.cfm). Maximum use of common tools, support equipment, and TMDE normally organic to the user is preferred. The list shall provide Nomenclature, Cage Code, National Stock Number (NSN), if assigned, Part Number, level of maintenance, and price of each item on the list.

C.9.14.2. 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.9.14.3. The following paragraphs are included to clarify special tools for Army use. Special tools are not identified as components in a SKO SC. Special tools are--

C.9.14.4. 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 functional group codes in RPSTLs and located in TMs as appendices. Fabricated tools are used on a single end item.

C.9.14.5. Tools that are supplied for military applications only (that is, a cannon tube artillery bore brush, BII) or tools having great military use but having little commercial application.

C.9.14.6. Tools designed to perform a specific task for use on a specific end item or on a specific component of an end item and not available in the common tool load that supports that end item/unit (for example, a spanner wrench used on a specific Ford engine model and on no other engine in the Army inventory).

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C.9.15. Electronic diagnostic testability analysis. The contractor shall perform a testability analysis of the BUFFALO diagnostic capability, to include number and types of diagnostic tests available for all BUFFALO components, assemblies, systems, sub-systems and deliver a testability analysis IAW CDRL A022. The report shall specify number and types of required Test, Measurement, and Diagnostic Equipment (TMDE), as well as a brief narrative description of the benefits to be derived from each diagnostic test. The report shall include a description of any on-board electronic diagnostic systems that may be interrogated for the purpose of maintenance and troubleshooting via an on-board diagnostic display screen. The report shall also contain all standard and proprietary data, data descriptions and error codes necessary to communicate with the electronic control module (ECM)/electronic control unit (ECU) and to maintain the electronically controlled subsystems. The contractor shall provide data, which specifies limits for all parameters, and how to interpret data outside limits. The contractor shall maximize the use of embedded Built-in Test (BIT) / Built-in Test Equipment (BITE) diagnostic capabilities, and fully document and support embedded system software. Software shall not contain proprietary restrictions or run-time fees. Any on-board data buses and diagnostic connectors shall also be identified in detail. CDRL A022

C.10 TECHNICAL PUBLICATIONS:

The Contractor shall deliver all data in English. All data delivered under this contract shall be submitted electronically via CD-ROM or electronic mail in a Windows XP compatible format. The Government will provide electronic mail addresses during the Start of Work Meeting.

C.10.1 The Contractor shall deliver one set of Technical Manuals (TMs) Buffalo MPCV in accordance with Publications Requirements, Attachment 4, and Department of the Army Repair Parts and Special Tools List (DA RPSTL), Attachment 5, TM Requirements Matrix, Attachment 6, the list Equipment Publications Defects, Attachment 0013 and CDRL A023 thru A025 and A054. The Operator, Field Level Maintenance, and National Maintenance Work Requirement TMs developed for the Buffalo MPCV will be Department of the Army Technical Manuals (DA TMs), DA RPSTL, and Electronic Technical Manuals (ETMs).

C.10.2 The Contractor shall prepare DA TMs and a DA RPSTL to support the Buffalo MPCV configuration purchased under this contract.

C.10.3 The Contractor shall prepare an Electronic Technical Manual (ETM). The RPSTL shall be developed from the Army Provisioning Master Record (PMR) from data that the Contractor provides and loads. The Contractor shall combine the RPSTL illustrations with the PMR RPSTL download. The Contractor shall develop the manuals as follows:

- a. A023 TM-9-2355-352-10 Operator
- b. A057 TM-9-2355-394-13&P Bar Armor
- c. A058 TM9-2355-xxx-13&P Cold Weather Kit
- d. A024 TM-9-2355-352-23 Field Level Maintenance
- e. A025 TM-9-2355-352-24P RPSTL
- f. A054 NMWR-9-2355-381 Buffalo A2 Engine
- g. A059 NMWR-9-2355-382 Buffalo A2 Transfer Case
- h. A060 NMWR-9-2355-383 Buffalo A2 Axles
- i. A061 NMWR-9-2355-384 Buffalo A2 Transmission
- j. A062 NMWR-9-2355-385 Buffalo A2 Crane
- k. A063 NMWR-9-2355-386 Buffalo A2 Alternator

The TMs shall be divided into volumes if the page counts exceed 1500 pages (750 sheets.) An example of the TM Volume Designation would be TM 10-2355-252-23-1. Item Warranty information will be added to the Manual(s).

C.10.4 The Contractor shall perform a 100% Validation on all data developed for the TMs to ensure accuracy, compatibility and completeness. The Contractor shall ensure that the TM data accurately reflects and supports the Buffalo MPCV configurations only, including any and all changes to the configurations resulting from testing, vendor parts supply and production line changes. The Contractor shall also perform a 100% review of the ETM to ensure that it meets contract requirements. The Contractors review of ETM shall be hands-on live testing, desk-top review, or a combination of these methods to ensure that the draft ETM is fully operational so that the Government can evaluate their operation, navigation, and structure. The paper copy draft manual and the ETM shall be mutually inclusive of data, text and art, and format.

C.10.5 VALIDATION PLAN (CDRL A026)

The Contractor shall deliver a Validation Plan, in its own format, informing the Government of its planned Validation schedule, start date, time, and location of validation. Validation Plan will be initiated in conjunction With the Maintenance analysis. This will allow time for Government to attend and observe the Contractors processes, if the Government so chooses. The validation report will detail the completion of each item identified in the Validation Plan and the results and findings of the validation of each work package.

C.10.5.1 The Contractor is required to validate the accuracy and usability of all publication deliverables. The Contractor shall have and use documented QA Review Processes and Inspections. The Government has the right to review validation records and witness validation processes. The Government reserves the right to witness the Contractors Validation at any time without advanced notice.

C.10.5.2 The Government will verify all publication deliverables. Government reviews and verification may be done through statistical sampling and actual performance; but could include actual performance of all procedures, if deemed necessary by the Government. The

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Government does not intend to review and verify every task, but relies on complete, careful editing and review and validation by the Contractor. If there are indications that the Contractor has performed incomplete or inadequate QA Reviews or validation the Government may elect to return products for rework and perform additional reviews on reworked products.

C.10.5.3 The Contractor shall support the Governments Verification by having at least one person in attendance who was involved in the development of the TMs. As deemed necessary technical representatives who are fully qualified to answer questions in regards to supplemental data, manual development, logistics, and provide necessary technical services.

C.10.5.4 The Contractor is responsible to:

- a. Document all recommended changes to the Draft Technical Manuals resulting from the Verification
- b. Sign off on verification record.
- c. Arrange for the services of a photographer in order to assist in documenting problem areas and changes required to correct errors or omissions in the Draft Technical Manual procedures demonstrated.
- d. Provide the necessary unique support items and services to manage, support, operate and maintain the Buffalo during the conference including EDIL, unique repair parts, and mandatory replacement parts subject to damage or destruction during the course of the verification. These repair parts will be made available prior to the beginning of the verification.

C.10.5.5 TECHNICAL MANUAL DEVELOPMENT PLAN (CDRL A055)

The Contractor shall prepare and deliver a TM Plan. The purpose of this plan is to describe the development process the contractor will use to plan, gather data, author, illustrate, produce, review, and deliver the required equipment publications under this contract. The TM Plan can be in the contractor's format. The plan shall identify data management and quality assurance processes that will be used to develop the technical publications. Any differences in methodology to be used for the different types of TM content (such as: operations, PMCS, troubleshooting, maintenance procedures, MAC, front and rear matter) shall be described. The TM Plan shall also identify significant personnel, their roles and responsibilities, and contact information. The TM Plan shall describe the process by which equipment configuration changes are identified, managed, and accurately integrated into the equipment publications on a timely basis.

C.10.6 ELECTRONIC TECHNICAL MANUAL (ETM).

C.10.6.1 The Contractor shall prepare and deliver an ETM and electronic files in accordance with Attachment 4, Publication Requirements.

C.10.6.2 The Contractor shall furnish unrestricted copyright releases for all TMs. The Contractor shall ensure that Government has the right to use, copy, and distribute the TMs, ETMs, and electronic data files delivered under this contract, electronically and in hard copy as the Government deems necessary. When the Contractor uses commercial data which covers a subcontractor's component(s) or portion thereof, and the subcontractor's data contains copyrighted material, the Contractor shall be responsible for obtaining a copyright release from their subcontractor and furnishing such release to the Government. In the event no copyrighted information is used in a deliverable under this contract, the Contractor shall certify this in writing. The SAM shall review the copyright release or letter before the copyright material is released. This release/letter must be delivered with or before the final reproducible copy (FRC) it covers. An FRC shall be considered incomplete without this release/letter. The Contractor shall package and deliver all source material, defined as operating plans, standard procedures, computer documents and residual material, source codes, computer disks, computer tapes, and all other media containing digital files developed to fulfill the requirements of this contract. The Government, at its discretion, will post the final DA-authenticated TMs on the Internet for the soldiers access.

C.10.7 CORRECTION OF ERRORS

C.10.7.1 The Contractor shall correct all errors found in the TMs, ETMs, and electronic data files resulting from Contractor and Government reviews, test or validation/verification at no additional cost to Government.

C.10.7.2 AMSTA-LCC-MA is designated as the Government RPSTL acceptance activity. If the Contractor receives RPSTL comments or corrections from Government activities other than the Government RPSTL acceptance activity, the Contractor shall forward these comments and corrections to the Government RPSTL acceptance activity for approval or rejection.

C.10.7.3 Approved Equipment Changes. The Contractor shall incorporate into the TMs and RPSTL, all Government approved changes made to the equipment up to delivery of the final equipment under this contract.

C.10.7.4 Information based on Engineering Change Proposals (ECP) or equivalents approved for the convenience of the Contractor shall be incorporated into the TMs and RPSTL by the Contractor at no additional cost to the Government.

C.10.8 TECHNICAL PUBLICATION PACKAGING

Technical Manuals shall be preserved in accordance with MIL-STD-2073, method 31 or 33, and shipped with each Buffalo vehicle produced after the TM and TB has been authenticated. The Government will print the manuals and bulletins and provide them to the Contractor. After the manuals are authenticated one set to include a CD-ROM must be shipped with each Buffalo. The Contractor is responsible for overpacking one set of the approved manuals with each BUFFALO MPCV. Systems shall not be shipped without authenticated manuals once they are received.

C.10.9 NATIONAL MAINTENANCE WORK REQUIREMENT (NMWR) (CDRL A027)

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C.10.9.1 NMWR Candidate List. The Contractor shall deliver a NMWR candidate list consisting of all parts coded for repair at the Below Depot Level of Maintenance or above, IAW CDRL A027. The source data for this list will be the Maintenance Analysis, and the LORA analysis. The Government will review, make changes as necessary, and provide the approved NMWR candidate list to the Contractor. The NMWR candidate list consists of repairable assemblies such as, but not limited to:

- (a) Axles
- (b) Engine
- (c) Hydraulic Boom

C.10.9.2 (CDRL A028) NMWR Data Summary. The Contractor shall perform a data summary for components on the Government approved NMWR candidate list. The summary may be in the Contractor's format, and shall be documented in accordance with Attachment 13. The NMWR Data summary shall be delivered IAW CDRL A028.

C.10.9.3 NMWR Final List. The Government will use the data summary to compare the cost to buy new vs. the cost to rebuild, establish inventory levels, and determine how often this item will need to be repaired. The Government will review this data and finalize the NMWR Candidate listing to identify which items are to have NMWRs developed.

C.10.9.4 NMWRs shall include inspection procedures, overhaul procedures, mandatory replacement parts list, and any refurbishing instructions. The maintenance procedures shall include information on replacing or upgrading testing/diagnostic sensors, final testing procedures and packing and preservation procedures. The new maintenance procedures will be included in the NMWR. NMWRs shall also include the technical rebuild standards, inspections, machining standards, and testing procedures. Pre-shop analysis for sub-components, if required, shall also be developed and included in the NMWRs.

C.10.9.5 The NMWRs shall include preservation, packaging, and marking. The packaging requirements for all components and end items under maintenance shall be requested from the items source of supply, packaging management activity during the documents initial development and any revisions. Packaging, marking for shipment and storage, heat treatment and marking of wood packaging materials shall be included in each NMWR work package as described in MIL-STD-40051-2. Reference shall be made to the preparation for storage or shipment procedures, including packaging and administrative storage, found in the applicable maintenance instructions work package.

C.10.9.6 Data developed from the analysis of each NMWR component candidate shall be included in each NMWR. The Contractor shall prepare the NMWRs using current versions of the following specifications and standards:

- (1) MIL-STD-40051-2, Subject: Department of Defense (DoD) Standard Practice Preparation of Digital Technical Information for Page-Based Technical Manuals.
- (2) MIL-STD-2361C, Subject: DoD Interface Standard Digital Publications development.
- (3) MIL-HDBK-122C, Subject: Department of Defense Handbook, Guide to the General Style and Format of U.S. Army Work Package Technical Manuals.
- (4) National Maintenance Point rebuild standards will be numbered IAW AR 25-30, , Subject: The Army Publishing Program. NMWRs will use the N prefix in lieu of the D prefix for Depot Maintenance Work Requirements.
- (5) AR 25-30, Subject: The Army Publishing Program.

C.11 MILITARY PACKAGING DOCUMENTATION REQUIREMENTS:

C.11.1 (CDRL A029) Contractor shall develop Equipment Preservation Data Sheets (EPDS) for each configuration of the Buffalo MPCV. Contractor shall include requirements for long term outside storage for up to 2 years in adverse environments, long term controlled humidity (50%RH) storage aboard ships for 30 months at sea, short term administrative outside storage of 90 days, and disassembly procedures to meet clearance requirements for land, air, and sea shipments. Controlled humidity and administrative storage procedures shall ensure drive-on/drive-off capability. Packaging requirements for BII and COEI shall be developed by the contractor. BII shall be packed separate from COEI. HAZMAT COEI will be packaged and shipped separately from the system in accordance with CFR Title 49. The contractor shall designate stowage locations and securement provisions. The contractor shall ensure the stowage locations shall deter pilferage and shall not interfere with lifting, tie down or other transportation handling. The Contractor shall submit EPDS electronically to the Government with the capability to view, identify, make corrections, add comments and insert approval IAW CDRL A029.

C.11.1.1 Updates and Changes to Equipment Preservation Data Sheets: The contractor shall revise the Equipment Preservation Data Sheets to reflect design changes that affect the system's shipment configuration, weight, or transportability. The contractor shall also provide revisions to the Equipment Preservation Data Sheets for each logistics change affecting packaging instructions for BII or COEI.

C.11.1.2 The Government will determine if all or selected portions of the Equipment Preservation Data procedures shall be validated to verify the adequacy of the vehicle preservation procedures and exercising requirements. Primary considerations will be given to the complexity and/or uniqueness of the process and/or materials involved. Government representative will attend and witness Contractors procedures.

C.11.2 Compliance with Federal and Industry Transportation Requirements: The Government ships using truck, rail, plane, and ship. The contractor shall develop Equipment Preservation Data Sheets for these modes of transportation and identify unique requirements for each mode of transport. This will allow the Government to process for shipment based on the intended mode of transport. 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, (3) AFMAN 24-204, Preparing Hazardous Materials for Military Air Shipments, and (4) International Air Transportation Association (IATA) Dangerous Goods Regulations . The contractor shall include disassembly procedures to meet the requirements of the codes and standards mentioned above.

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C.11.3 Component Parts Packaging Requirements: Contractor shall develop packaging data for all parts identified during the provisioning process as TACOM managed with an SMR code of P, excluding PR and PZ, to provide for life cycle support and safe distribution of the reparable items. Packaging data shall also be developed for Field Level Kits. Packaging shall be developed in accordance with MIL-STD-2073. All items shall be classified as select group (C.11.3.2) or special group (C.11.3.3) items. Any HAZMAT items shall be considered Special Group Items and have packaging designed to meet the requirement of the HAZMAT regulations identified in Paragraph C.11.2. The contractor shall provide LMI Data Products for packaging data systems, entry as specified in MIL-PRF-49506, Attachment 7 (Packaging Data Products) and Attachment 8 (Packaging Data Formatting Instructions). Contractor shall furnish drawings and notes sufficient for Government review concurrent with each packaging data submittal.

C.11.3.1 Excluded 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, 81346, 81348, 81349, 81352, 88044 or identified as GFE/GFM. Also EXCLUDED are items for: (1) not mission capable supply, (2) depot operational consumption, and (3) not-for-stock supply.

C.11.3.2 (CDRL A030) Coded Packaging Data: The Government will provide the contractor with periodic reports showing status of the program. Data is critical to populating the National stock Number Material Data Record (NSNMDR) and the Federal Logistics Information System (FLIS) Government data files and shall be 90% accurate. The contractor will rework submittal errors within 10 days after rejection by the Government. The contractor shall provide the necessary personnel, facilities, equipment, material, and the electronic data interface. The contractor shall include information for each of the items so TACOM can determine the adequacy of the packaging submittal. This includes item drawings and data such as Source, Maintenance & Reliability codes, Unit of Issue codes, Unit of Measure, Measurement Quantity, and copies of applicable Material Safety Data Sheets. The contractor shall furnish item drawings, photo documentation and notes sufficient for reviewing the packaging designs. Information shall be formatted and delivered in accordance with CDRL A030 and Attachment 7 and Attachment 8 (Packaging Data Products and Format).

C.11.3.3 (CDRL A031) Special Packaging Instructions (SPI): The contractor will prepare SPIs for each reparable item, each hazardous material item, each fragile, sensitive, critical item, shelf life items, electrostatic discharge sensitive items, disassembly procedures, items requiring special handling or condemnation procedures and any item that cannot be adequately packaged/defined as a Select item, following MIL-STD-2073-1D including kits and sets. SPIs shall meet the performance of ASTM D4169, Distribution Cycle 18, Assurance Level I, with Acceptance Criterion 3 (Product is damage free and package is intact). Each SPI submittal shall have a test report, including photographs, attached showing the condition of the package and part before and after the testing. Acceptable photographic evidence shall show the product is undamaged from all angles. SPI shall be in a format that can be viewed, changed, and commented upon. The contractor shall provide read/write access to SPI. All data submitted will be contractor validated and 95% accurate. The contractor will rework submittal errors within 10 days after rejection by the Government. Information shall be formatted and delivered in accordance with CDRL A031.

C.11.4 Contractor shall provide a Material Safety Data Sheet (MSDS) for each hazardous material item IAW CDRL A041 Safety Assessment Report. Packaging and marking for hazardous material shall be in accordance with MIL-STD-2073-1D Standard Practice for Military Packaging, Appendix J, Table J.Ia Specialized Preservation Code HM and the Joint Service Regulation AFMAN24-204/TM38-250 for Military Air Shipments.

C.11.5 (CDRL A032) The Contractor shall deliver a LLRC candidate list consisting of all reparable items contractor recommends IAW CDRL A032. The source data for this list will be the Maintenance Analysis. The Government will review, make changes as necessary, and provide the approved LLRC candidate list to the Contractor.

C.11.5.1 (CDRL A033) Contractor shall conduct an assessment to determine if existing or new Long Life Reusable Container (LLRC) designs are suitable for reparable items including engine, transmission and transfer case. The contractor shall assess form, fit and function of existing containers. Contractor shall compare costs of modifications to existing designs and alternate new designs. Assessment data shall include analysis justifying the need for a new or modified container. If a new or modified LLRC is required, Contractor shall submit a proposal that includes development cost, validation testing requirements and cost, life cycle cost estimate, Container Design Retrieval System (CDRS) results and cost to develop a Technical Data Package (TDP) to develop new or modify existing LLRC. If a new or modified LLRC is required the Government shall be notified IAW CDRL A033.

C.11.5.2 Contractor shall conduct an assessment to determine if new or existing commercially available reusable container designs are suitable for any Line Replaceable Units (LRU). The contractor shall assess form, fit, and function. Compare costs to modify existing designs or alternate new designs. The commercially available reusable container must meet the validation testing requirements (Para. C.14.3.3). Contractor shall develop and submit a SPI (Para. C.11.3.3) for each LRU with a commercially available reusable container describing the packaging processes and materials IAW MIL-STD-2073-1D. Delivery of SPI shall be IAW CDRL A030. If a new or modified commercially available reusable container is required, Contractor shall submit a proposal for each commercially available reusable container that includes development cost, validation testing requirements and cost, life cycle cost estimate and cost to develop a Technical Data Package (TDP) to the Government for review and subsequent approval or rejection IAW CDRL A033.

C.12 QUALITY ASSURANCE MANAGEMENT

C.12.1 Quality Management System. The contractor shall implement a quality management system in accordance with the requirements of ISO 9001:2000 or an equivalent quality system as a measurement of product quality for the Buffalo MPCV systems that are produced for this contract. The contractors quality management system shall be made available and accessible at anytime for Government review and

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evaluation to assess the contractors quality system compliance, implementation and effectiveness.

C.12.2 MATERIAL REVIEW BOARD (MRB). The contractor shall establish an MRB or equivalent (DCMA approval) that includes the on-site Government representative, with complete authority for approval or disapproval of MRB actions. This board is responsible for disposition of minor nonconforming material (product, processes, etc.). Authority to approve all MRB decisions involving repair, rework, use-as-is material, and standard repair or other non-standard repair procedures will be at the discretion of the Government representative. Both standard and nonstandard repair procedures shall include instructions for reprocessing material after repair and shall specify all contractor inspections required. The contractor shall not consider a new standard repair process until all assignable causes of variance or omitted processes (or process steps) have been eliminated and corrected. The Government's review or concurrence of a repair technique shall not bar the Government's right to reject the material if the Government determines that the repair does not adequately correct the nonconformity. The establishment of the MRB shall be at no cost to the Government.

C.12.2.1 A minor nonconformance is defined as a nonconformance which does not adversely affect any of the following:

- a. Health or safety
- b. Performance or function
- c. Interchangeability, reliability, or maintainability
- d. Effective use or operation
- e. Weight or appearance (when a factor)
- f. Logistics

C.12.2.2 A major nonconformance is defined as a nonconformance other than minor that cannot be completely eliminated by rework or reduced to a minor. A nonconformance that is major or critical shall not be subjected to MRB disposition.

C.12.2.3 "Use-As-Is" is defined as a disposition of material with one minor nonconforming characteristics that has been determined (by MRB) to be usable for its intended purpose in its existing condition.

C.12.3 Corrective Action Board (CAB). The contractor shall implement a CAB consisting of top management representatives of appropriate contractor organizations, with Government oversight and authority for approval or disapproval of the CAB. The CAB shall have the level of responsibility and authority necessary to effect corrective actions for the specific cause(s) and continual improvement of product quality processes that shall ensure that the specific cause(s) of nonconforming material (product and process) has been identified and completely eliminated and that corrective and preventive actions are timely and effective throughout the contractors organization. The CAB shall have the authority to require investigations necessary to define effective corrective and preventive actions which shall result in continual improvement of product and processes, such as to reduce costs associated with scrap, rework and repair, and the elimination of nonconforming material. The establishment and implementation of the CAB shall be at no cost to the Government.

C.12.3.1 At no additional cost to the Government, the contractor shall develop and maintain a data system for recording nonconformance information. Typical data is as follows:

- a. Quantity of nonconforming items
- b. Recurrences (number and type)
- c. Cause determinations
- d. Long term corrective actions (status and delinquent actions)
- e. Dispositions (number and type)
- f. Costs related to each type of disposition (rework, repair, and scrap)

C.12.4 Acceptance Inspection Equipment. Except as otherwise expressly provided under this contract, the contractor is responsible for the supply and maintenance of all inspection and test equipment necessary to assure that the supplies conform to the contract requirements. Supplier-furnished inspection and test equipment shall equal or exceed the design criteria and shall be initially approved and certified by the supplier. All inspection and test equipment shall be made available to the Government Quality Assurance Representative (QAR) when required for verification purposes.

C.12.5 First Production Vehicle Inspection Plan. (CDRL A034) The contractor shall submit an FPVI plan thirty (30) days after contract award, for conduct of the FPVI. The plan shall consist of the following: a) purchase description requirements and verification; b) Final Inspection Record (FIR); c) Buffalo MPCV build process(es) (or Buffalo MPCV Build Books for each FPVI vehicle); d) integration and assembly (in-process); e) fabrication process(es); d) complete configuration changes; e) Build of Materials (BOM); f) Qualified Products List (QPL); g) complete inspection and test data for Buffalo build (i.e., suppliers and subcontractors); h) specifications (subsystems, components and materials); i) certifications; j) product and installation drawings; and k) purchase orders.

C.12.5.1 First Production Vehicle Inspection Report. (CDRL A035) The contractor shall prepare and submit for acceptance an inspection and test report at the completion of FPVI. The report shall describe in detail the results of the FPVI and shall be substantiated by objective quality evidence. The report shall define in writing all deficiencies for the specific cause(s) and describe all long term corrective actions taken that eliminate the specific cause for the life of the affected items. If the FPVI is disapproved and additional inspections are required, the contractor shall resubmit an inspection and test report. All costs related to additional FPVI inspections and tests shall be borne by the contractor, at no increase in contract price.

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C.12.5.2 Final Inspection Record (FIR). (CDRL A036) The contractor shall prepare a Final Inspection Record (FIR) that incorporates the requirements of the contract and purchase description for the production (and test) vehicles delivered under this contract. The FIR shall incorporate drawings (installation, wiring schematics, assemblies, and subassemblies), major components, finishing, inspections, tests, certifications, configuration changes, automotive system, vehicle delivery preparation, deprocessing sheets and a deficiency sheet. The Buffalo MPCV FIR shall require approval by the Procuring Contracting Officer (PCO), which shall, also, include approval by the PCO of each subsequent update and revision, throughout the production contract period. The contractor shall update and revise the Buffalo MPCV FIR that incorporates the above FIR requirements.

C.12.5.3 Production Vehicles System Acceptance. The approved FIR shall be utilized by the contractor to completely inspect Buffalo MPCVs for FPVI and to perform an end item inspection on the completed production Buffalo MPCVs. The FIR will be utilized by Government representative(s) to conduct acceptance inspection on Buffalo MPCVs. Deficiencies discovered during inspection shall be corrected for the specific cause(s) by the contractor and described on the FIR Deficiency Sheet. The contractor, at no increase in cost to the Government, shall correct the specific cause(s) of any deficiencies discovered during verification and deprocessing. The PCO approved deprocessing sheet shall accompany each vehicle delivered. The completed FIR (marked-up copy) for each vehicle shall be provided to Government representative(s) for records.

C.12.5.4 Test Vehicles System Acceptance. Under no circumstances shall any test vehicle system be accepted by the Government (final DD Form 250), nor shall the contractor be eligible to invoice or claim any payment exceeding the progress payment rate or performance based payment rate, on the basis of the conditional DD Form 250. Execution of a final DD Form 250 and the completion of payment shall occur only after (i) successful completion of all testing and (ii) completion by the contractor of all refurbishment, upgrading, and corrections required to bring such vehicles up to serviceable and mission capable condition (10/20 standards).

C.12.5 First Article Test (FAT). A First Article Test (FAT), as specified in the Buffalo MPCV purchase description and the contract, shall be performed on up to seven (7) Buffalo MPCV systems. The FAT shall consist of a First Production Vehicle Inspection (FPVI), conducted at the contractors manufacturing facility and a Production Verification Test (PVT) conducted at a Government test site(s). The test vehicles for PVT shall not be shipped to the Government test site until acceptance of the FPVI report has been provided by the Procuring Contracting Officer, or as directed by the Procuring Contracting Officer.

C.12.5.1 Notification of First Article Test. The contractor shall provide written notification of the First Production Vehicle Inspection (FPVI), at least 20 calendar days prior to the start of FPVI. The written notification to the Procuring Contracting Officer and Administrative Contracting Officer (ACO) shall identify the time, date, and duration of the FPVI. For PVT, the Government will provide a 30 day notification to the contractor for system support in the PVT.

C.12.5.2 First Article Test - First Production Vehicle Inspection (FPVI). This initial part of the First Article Test (FAT) shall be conducted by the contractor at his manufacturing facility, witnessed and/or participated by Government representative(s). At the Governments discretion, the FPVI vehicles may be randomly selected at any point during manufacturing process or at the completion of the FPVI units. The FPVI shall consist of verification of vehicle characteristic requirements in accordance with the contract and purchase description for conformance. The contractor shall determine the specific cause of any defects discovered and correct all defects, accordingly, at no increase in contract price. The contractors records that relate to the Buffalo MPCV build process and contract shall be readily available for Government review prior to the start of the FPVI. Concurrent with the FPVI, the contractor shall conduct a shake-down test at his manufacturing facility on each of the seven (7) Buffalo MPCV test vehicles, prior to shipment to the Government test site(s) (Yuma Proving Ground - YPG and Aberdeen Proving Ground - APG). The contractor's shake-down test shall ensure that the vehicles are test-ready and meet the Buffalo test schedule requirement.

C.12.5.3 Certification Requirements. The contractor shall prepare certifications for items identified in the Buffalo MPCV system purchase description. 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 (and copies provided) to the Government for review at the time of the FPVI. Subcontracting does not relieve the contractor of providing the required certification information from either the subcontractor or their manufacturers (nor distributors). If any certification is unacceptable to the Government, the contractor shall conduct additional examinations/tests or provide additional documentation as required to validate that certification at no increase in contract price. Information on acceptable certifications is identified in E of this contract.

C.12.5.4 Test Vehicle System Shipment. Under no circumstances shall any test vehicle 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 PCO at the procuring activity;
- b. All deficiencies revealed by the Government inspection have been corrected by the contractor and approved by the Government, as evidenced by a conditional DD Form 250, signed by an authorized Government representative before shipment.

C.12.5.5 First Article Approval of Buffalo MPCV System. First Article approval shall be required for this contract, under the authority of FAR Clause 52.209-4, Alt I & II, First Article Approval Government Testing. If the First Article is disapproved, the contractor upon Government request shall repeat any part or all of the First Article Test (FAT) on the first article vehicles. All costs related to these tests shall be borne by the contractor.

C.12.5.6 First Article Waiver. The contractor may request a waiver; however, supporting documentation shall accompany the request.

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The Government may waive the requirement for the First Article Test where supplies identical or similar to those called for in the schedule have been previously furnished by the contractor and have been accepted by the Government.

C.12.5.7 Test and Production Locations. The Contractor shall produce the Buffalo MPCV production (and test) vehicle systems and conduct the First Production Vehicle Inspection (FPVI) at the same location and facility. Should the contractor change the location and facility of production of Buffalo MPCVs and first article units, a new First Article Test shall be required, regardless of any previous First Article Tests conducted.

C.12.5.8 Failure to Deliver. If the contractor fails to deliver any First Article unit on time, or if the Procuring Contracting Officer disapproves any First Article unit, the contractor shall be deemed to have failed to make delivery within the meaning of the DEFAULT clause of this contract.

C.12.5.9 Test Units. Unless otherwise provided in the contract, and if the approved First Article is not consumed or destroyed in testing, the contractor may deliver the approved First Article as part of the contract quantity, if it meets all contract requirements for acceptance.

C.12.5.10 First Article Test Production Verification Test(s) (PVT). The second part of the First Article Test (FAT) is the Production Verification Test (PVT) that will be conducted at Government test sites (See Section E, Test and Evaluation), on up to seven (7) Buffalo MPCVs that underwent FPVI at the contractor's facility. The PVT will include the following: Developmental Testing (DT); Operational Testing (OT); Logistics Demonstration (Log Demo), RAM (reliability testing) and FPTs (priced-option).

C.12.5.10.1 Transportation Costs. The PVT vehicle system shall be shipped to the specified Government test site(s) in accordance with the requirements of this contract. All vehicle shipment charges from the contractor's plant to the various sites and their return to the plant for refurbishment shall be the sole responsibility of the contractor.

C.12.5.10.2 Limited Technical Vehicle Inspection (LTVI). Upon receipt of the test vehicles at the test site(s), a limited technical assessment of each test vehicle will be conducted jointly by Government and contractor representatives, prior to the start of PVT. The assessment will again review configuration changes and the condition of each test vehicle, since completion of FPVI. The approved Buffalo MPCV FIR (Final Inspection Record) will be utilized to conduct the technical inspection. All technical documents that were utilized for the build of the Buffalo MPCVs shall utilize for the technical assessment. These documents shall include: product drawings, Buffalo purchase description, specifications and any other technical documents that were utilized for the build of the Buffalo MPCV. The contractor shall make available all applicable technical documents at the test site for conduct of the LTVI and assessment. The contractor shall be allowed no more than eight (8) hours per vehicle to conduct the LTVI and to condition the vehicle as operational.

C.12.5.10.3 RAM (Reliability, Availability, and Maintainability) Testing. As part of the PVT, the Government will conduct RAM testing on Buffalo MPCV systems at a Government test-site on a quantity(ies) that will be determined by the Government. The contractor shall provide on-site support as required and shall be required to respond to TIRs that are generated by the tester. The contractor will be required to participate in scoring conferences, at the completion of the tests.

C.12.6 System Support Package List (SSPL) and System Support Package Plan (SSP Plan) (CDRL A037). The contractor shall prepare and deliver a system support package list (SSPL) and a system support package plan (SSP Plan) to support Production Verification Test (PVT) throughout completion 30 DACA. The SSPL and SSP Plan shall include the following: spare/replacement of repair parts; common and special tools; Basic Issue Items (BII); Component of the End Item (COEI); expendable supplies; a technical data package; production/test vehicles; and technical personnel. The SSPL and SSP Plan shall be described in detail and shall identify the status and source of supply of each item, whether contractor or Government supplied. The contractor shall maintain an updated SSPL and SSP throughout PVT for any system retest and/or configuration changes.

C.12.6.1 System Test Support. The contractor shall provide capable and knowledgeable on-site technical support throughout the completion of the Production Verification Test (PVT) at the Government test sites: Aberdeen Proving Ground (APG) and Yuma Proving Ground (YPG). The contractor's support of system testing shall be the following: system support package (SSP); system support package list (SSPL); technical support personnel or Field Service Representative(s) (FSRs); logistics and maintenance support above the DS/GS (Direct Support/General Support) level; support equipment (repair and/or replacement or spare parts, technical manuals, Basic Issue Items, special tools, and expendable parts). The SSP shall be delivered to the Government test sites 30 days prior to the start of production verification test. FSRs and/or technical personnel shall report to the test site when directed by the procuring activity.

C.12.6.2 The contractor shall bear sole responsibility for correction (or fulfillment) of shortages or deficiencies and currency of the SSP and SSPL that impact PVT during the test period. If shortages or deficiencies in system test support (SSP and SSPL) are discovered at the time of or during the tests, the contractor shall bear the sole responsibility of fulfillment of all shortages for all tests, within twenty-four (24) hours of notification. Accordingly, updates to the SSP and SSPL shall be delivered to the test site (prior to retest) within twenty-four (24) hours of notification.

C.12.6.3 System Support. System support is defined as providing any items, parts and components required to support the entire vehicle configuration for on-vehicle components. The Government will provide petroleum oil and lubricants (POL) for each vehicle undergoing testing. The contractor shall provide all other tools to support the on-vehicle maintenance that is to be performed by the Government.

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The TMs that the contractor provides at the test site shall include, as a minimum, all operations and remove/replace maintenance procedures.

C.12.6.4 System Support Package. The system support package shall be of the same configuration as the test articles and shall sustain the PVT for the entire test period. The SSP and SSPL are described, as a minimum, as follows:

- (1) Spare/Repair Parts. All SSPs shall contain parts to meet the requirements arising from predicted failures, scheduled maintenance, and anticipated wear out sufficient to support the test requirements.
- (2) Common and Special Tools. Required common tools/took kits shall be identified on the SSP List.
- (3) Basic Issue Items (BII), Component of the End Item (COEI). BII and COEI shall be identified in the SSP List.
- (4) Expendable Supplies. Expendable supplies such as oils and lubricants shall be identified on the SSP list. Only unique products shall be supplied by the contractor.
- (5) The Technical data package shall consist of OEM Commercial maintenance manuals and parts lists for all major assemblies, the contractor will have to develop data for vehicle systems not supported by OEM data. The data package shall contain maintenance instruction, and PMCS as well as operator instruction. The Technical Support package shall be supplied in quantities sufficient for the conduct of performance tests.
- (6) Production vehicles/platforms sufficient for the conduct of testing will be provided.
- (7) Technical Personnel or FSRs (Field Service Representative(s)).

C.12.6.5 Field Service Representatives (FSRs) - Contractor. Field Service Representatives shall advise the Government on routine operation, safety, maintenance, calibration, resolve system support matters/issues, and interface with any component part involving the contractor and his suppliers. The FSRs shall be available to assist the entire maintenance workday (not to exceed 12 hours).

C.12.6.6 Test Coupons. The contractor shall provide the test coupons necessary to complete testing (See CLIN 6001AA). The coupon list will be developed by the T&E sub-IPT.

C.12.7 Test Incident Reports (TIRs). (CDRL A038) During conduct of the Production Verification Tests (DT, OT, RAM, Log Demo, and FPT/priced option), Test Incident Reports (TIRs) will be generated from the tester. The contractor shall be responsible for accessing computer databases for all TIR data during Government testing. Each TIR written will be "scored" per the Failure Definition/Scoring Criteria. The contractor shall respond to TIRs as directed below with a Failure Analysis and Corrective Action Report (FACAR). The response shall be submitted in the Army Test Incident Reporting System (ATIRS) as well as in an electronic format provided to the PM. A final FACAR shall be submitted to the Government within the time limits listed below. Should a final response not be available within the designated time, an interim/preliminary response is required for submittal. Submittal requirements are based on the TIR release date and are expressed in calendar days.

Incident Classification	FACAR Submitted Within
Critical	72 hours after contractor notification
Major	15 days
Minor	30 days
Information	Submit FACAR if requested by the Government.

Note: The contractor shall coordinate with the U. S. Army TACOM, LCMC, Product Quality Manager for the Buffalo MPCV system for assistance in accessing the TIR databases for the purpose of TIR retrieval.

C.12.7.1 Test Vehicle System Failure. Failure of either the Production Verification Test (PVT) or Follow-on Production Test (FPT), when required by the contract or exercised by the PCO, vehicle systems as a result of any defect detected shall be cause for rejection of such test vehicle systems and vehicle systems being offered for acceptance, until objective evidence has been provided by the contractor that corrective action has been taken to eliminate the defect. Any defect found during, or as a result of the PVT or FPT shall be prima facie evidence that all vehicle systems produced that are represented by the PVT, FPVI, or a previous FPT are similarly deficient unless contrary objective evidence satisfactory to the Contracting Officer is furnished by the contractor. Such a defect on all affected vehicle systems associated repair parts and in the production process itself shall be corrected by the contractor at no increase in contract price.

C.12.7.2 Vehicle System Retest. In the event of vehicle system test failures, the Government reserves the right to choose to retest the same or another vehicle system upon correction of the defect(s) by the contractor to the complete extent and duration specified in the test program, or to such lesser extent as the Contracting Officer deems appropriate. If another vehicle system is selected, the contractor shall be responsible for all deficiencies detected regardless of relationship to the original test failure and shall comply with the provisions above. The contractor shall bear responsibility for delays in the program test period resulting from vehicle defects or failure to adequately furnish parts support (within 24 hours on a scheduled test day) and the Government will have the right to extend the specified program test period accordingly for such contractor induced delay. The extent of any responsibility for

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contractor induced delay shall be limited to the Governments direct operating costs.

C.12.8 Test Vehicles Refurbishment. The contractor shall complete a detailed inspection and assessment of up to seven (7) test vehicles upon their return to the contractor's manufacturing facility. The contractor shall submit a detailed inspection and assessment report on each vehicle to the Government for review within fifteen (15) days for Government review. The Government will review the report within twenty (20) working days and provide direction on the tasks that the contractor shall perform. Within thirty (30) days after receipt of Government direction, the contractor shall submit a ceiling price proposal for refurbish the test vehicles to fully mission capable (10/20) standards for the selected tasks. Refurbishment to 10/20 standards shall be completed within sixty (60) days, after Government provides direction to initiate refurbishing. Refurbishing of the test vehicles shall be performed by the contractor at no increase in cost to the Government.

C.12.9 Manufacturing Standard/Logistics Vehicle. After completion of PVT, the designated test vehicles shall be restored to 10/20 standards at the contractors expense. The First Production Vehicle or another production vehicle (at the PCOs discretion) may be retained as the manufacturing standard/logistics vehicle until completion of the contract and submitted as the last unit to be delivered under the contract. All configuration changes as a result of drawing and/or specification modifications taking place after the FPVI and/or PVT shall be made to the First Production Vehicle so that this vehicle will be representative of the current configuration throughout the life of the contract.

C.12.10 Follow-on Production Test (FPT) Priced Option. During the performance of this contract, Follow-on does not plan to have more than quarterly FPTs starting the fourth quarter after the month of First Article Approval. The FPTs will be conducted per the Verification Matrix of the Buffalo MPCV system ATPD utilizing a Government prepared test plan. The extent of testing may be reduced at the discretion of the Government. The FPTs will be approximately 90 days in duration; however Production Tests (FPT) will be periodically conducted by the Government at a Government test-site [TBD]. The quantity of test vehicles to conduct the FPT is two (2) Buffalo MPCV systems. The Government, delays caused by test vehicle breakdown(s) or failure of the contractor to comply with specifications and approved configuration/technical requirements will not be the basis for adjustment of the contract delivery schedule or contract price.

C.12.11 Control Test. The contractor shall conduct quality conformance inspection (QCI) on all characteristic items identified in Table I of the purchase description or the FIR throughout the production contract, which include control test characteristic items. After initial QCI on all characteristic items on the first five (5) production vehicles, the contractor shall conduct control tests (CNT) (Table 1 of the purchase description) when exercised by the PCO. The control test production vehicles will be randomly selected from the production line by Government representative(s). All inspections and tests will be witnessed and/or participated by the designated Government representative(s). The control test(s) shall provide documentation of all test results and the specific or assignable cause of the deficiency.

C.12.11.1 Control Test Vehicles. When exercised by the PCO, selected vehicle(s) that undergo the control test(s) will NOT be accepted by the Government on a DD 250, nor shall the contractor be eligible for payment until the control test vehicle has successfully passed all testing and completion of the FIR (Government and contractor conducted). The final DD 250 will be approved AFTER the contractor has made all required corrections to control test vehicle deficiencies and the lot inspections/corrections are completed.

C.12.12 Welding. Thirty (30) days prior to welding production vehicles, the contractor shall have available at all welding facilities welding procedures (WPS) which have been tested and qualified for use in accordance with applicable specifications. Ferrous armor and structural steel with a yield strength equal to or greater than 80KSI shall be welded per AWS D1.1. All weldments involving crack prone materials such as MIL-A-46100 subject to fatigue loading shall be preheated prior to welding and shall be duly noted in the WPS. Aluminum armor or structural aluminum shall be welded IAW AWS D1.2. Welding processes not covered by the referenced documents shall be done to any AWS welding standard appropriate for the material thickness, strength and welding process selected. All welders shall be qualified to the applicable welding specification prior to production. The contractor shall advise the Contracting Officer when these documents are available for review and acceptance by the Government at the prime contractor's facility. If the Government finds welding controls to be in non-compliance to the contract, the contractor must take immediate corrective action to resolve the non-compliance. The contractor shall also provide a list of welding vendors who supply welded parts which must comply with the two noted specifications. An audit schedule will be coordinated between contractor and Government representative to assure that these vendors meet the same requirements as noted herein.

C.12.13 CARC paint pretreatment shall be as described in Section E and the purchase description. For surfaces that exceed 400 degrees F, CARC shall not be used; a commercial high heat paint or MIL-B-14105 may be used. Adhesion testing shall be performed on a completely cured CARC finish.

C.12.14 Product Quality Deficiency Reports (PQDR) Field Generated. (CDRL A039) The contractor shall investigate and provide long term failure analysis and corrective action for all PQDRs, generated on Standard Form 368 (existing form or electronic) against products or supplies produced under this contract, at no additional cost to the Government. Upon request of the QDR exhibit, the contractor shall be responsible for all costs associated with shipping the QDR exhibit(s) to their designated location. The contractor shall provide replacement parts for all components determined to be deficient or attributable to workmanship/product nonconformance, at no additional cost to the Government. Production/field corrective actions shall be accomplished at no additional cost to the Government. Corrective actions requiring configuration changes shall follow the configuration requirements as specified in C.7.

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C.12.14.1 Product Quality Deficiency Reports (PQDRs) Field Generated. The contractor shall provide a written response within 72 hours (electronically) to all field reports generated from the users. Product Quality Deficiency Reports that relate to safety shall require a written response within 24 hours.

C.12.14.2 A final written response, in contractor format, shall be submitted to the designated Government representative within 30 calendar days of receipt of a PQDR. If a final response is not ready for submittal, the contractor shall submit an interim response detailing the status of the investigation. The response shall report on the actions taken, corrective action, and contractor's position with respect to repair or replacement parts.

C.12.15 Product Quality Deficiency Report (PQDR) Government Furnished Material (GFM). (CDRL A040) Upon receipt of deficient Government Furnished Material (GFM), the contractor shall prepare and submit a contractor form to the designated Government office.

C.12.16 Quality Records. All records of inspections, examinations, certifications, tests, supplier audits, and purchase orders shall be retained by the contractor for a period of 5 years after contract close-out. These records shall be made available (and copies provided) to the Government, upon request. Additionally, where product or process deficiencies have occurred, the contractor's records shall provide documentation that fully describes the root cause of deficiencies and root cause corrective actions.

C.12.17 Delta Logistics Demonstration (DLD)

C.12.17.1 Purpose. The purpose of the DLD is to evaluate the supportability engineered and established for the system in those areas such as: maintenance planning, maintenance concept, task allocation, troubleshooting procedures, repair procedures, its peculiar support equipment, all technical publications (ex: TMs & RPSTL), Maintenance Allocation Chart (MAC), validity of MAC times, operator and maintainer tasks, Test Measurement Diagnostic Equipment (TMDE), embedded diagnostics/prognostics, test program sets, diagnostic procedures in the TM, common tools, special tools, spares and repair parts list, any training and training devices. The DLD will assess the Technical Manual support to ensure the supportability of the vehicle through a demonstration is successful, focusing on a sample of tasks and procedures as selected by the Government.

C.12.17.2 DLD REQUIREMENTS

C.12.17.2.1 Location: The DLD location will be at the Governments facility, 6501 East 11 Mile Rd, Warren, MI 48397-5000.

C.12.17.2.2 The scheduled start of the DLD will commence in early January 2014 for thirteen (13) consecutive weeks. The Contracting Officers Representative (COR) will notify the Contractor at least thirty (30) days prior to the beginning of Delta Log Demo. The Government will utilize the Technical Manuals delivered by the Contractor in accordance with C.10 through C.10.4. The Contractor shall be prepared to participate in a Start of Work meeting as indicated in section C.12.17.9.1.

C.12.17.3 Contractor Requirements: The Contractor shall provide the following in accordance with the DLD Plan dated 17 September 2013, Attachment 042:

C.12.17.3.1 One (1) system Technical Expert for the MPCV shall provide fault insertion, removal, reinsertion, repairs, technical understanding of the functionality of the MPCV. The Contractor shall deliver a Fault Insertion Plan to the Government forty-five (45) days prior to the start of Delta Log Demo in accordance with CDRL A066. The Technical Expert shall provide support in the following areas relating to the MPCV: electrical, hydraulic and troubleshooting functions, and assistance in the MPCV daily preparation identified within the Government DLD Plan.

C.12.17.3.2 At a minimum, One (1) Technical Writer and One (1) Illustrator, shall work directly with a Government Publications Specialist to record written notes during DLD, document all corrections required and answer any questions about TM development that come about during DLD. The Contractor Technical Writer shall make corrections to the Technical Manual Work Packages as identified during DLD, for those tasks that fail and also tasks that were accepted with change. The Contractor shall provide Technical Writer(s) and Illustrator(s) to meet the Government required turnaround times for corrected Technical Manual Work Packages. One Technical Writer shall be located on site at the Governments facility with the remainder of the Writer(s) and Illustrator(s) located at the Contractors facility in Sterling Heights to incorporate changes. The Government will not provide a hard line network connection to the Contractor at the Governments facility.

C.12.17.3.3 A maximum forty-eight (48) hour turnaround time shall be allotted for all corrections. The Contractor shall make all of the necessary corrections from the DLD prior to the submission of the -23 in accordance with CDRL A024; Repair Parts Special Tool Listing (RPSTL) in accordance with CDRL A025; Maintenance Allocation Chart (MAC) in accordance with CDRL A016; Maintenance Analysis (MA) and Level of Repair Analysis (LORA) in accordance with CDRL A012; the Training Support Package (TSP) and the 036 Report after the conclusion of the DLD.

C.12.17.3.4 The Contractor shall provide the necessary support and services as identified in the Government DLD plan.

C.12.17.3.4.1 All Expendable and Durable items listed in the -23, but in quantities suited to supporting one vehicle in the appropriate quantities to perform the required DLD tasks.

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C.12.17.3.4.2 All Mandatory Replacement Parts for the 146 tasks on the DLD task list.

C.12.17.3.4.3 The Government will provide a camera pass or provide a Government camera with a pass for use during the DLD. If a Government camera will be used during DLD, files will be transferred after completion of the tasks.

C.12.17.3.5 The Contractor shall do a complete vehicle Preventive Maintenance Checks and Services (PMCS) and correct any minor corrective actions at the conclusion of the DLD. Assumption is that the vehicle in question will be at a 10/20 standard prior to DLD and will be near a 10/20 standard at the conclusion of the DLD.

C.12.17.3.6 The Contractor shall provide all required special tools and test equipment (STTE) identified in the TM and listed in the Tool Identification List (TIL). The Contractor shall provide the complete STTE regardless if the items are used in the DLD tasks. The complete STTE equates to all required STTE needed for all work packages within the -23 and identified within the RPSTL. The Contractor shall propose the cost of placing each STTE inside a bag (commercial) for transport to the DLD site that does not have an identifying CAGE CODE and Part Number marked on the item. Each item shall be tagged with the NSN (that matches in the -23/RPSTL), the nomenclature and the CAGE & Part Number. An updated STTE listing shall be provided to the Government at the completion of DLD that provides the following:

- a. Nomenclature, Part Number, NSN, Cost, lead time, and Corresponding Work Package

C.12.17.4 Government Support Requirements: The Governments DLD Plan (Attachment 41), includes schedule, start date and will be available to the Contractor prior to contract award to allow time for the Contractor to prepare and have ready all supporting materials. The DLD Plan will outline the tests, fault insertions, and demonstrations that will take place as decided by the Government DLD Integrated Process Team (IPT) members. The DLD tasks identified by the Government will be reviewed and verified to determine the validity of:

- Maintenance Allocation Chart Maintenance Levels, the functions and time standards.
- Publications for clarity and completeness of instructions, accessibility, interchangeability and safety.
- Common and special tools, and tool sets required.
- Common and special test, measurement and diagnostic equipment required.
- Repair Part, Special Tool Listing (RPSTL)
- Maintainability of end item components

C.12.17.5 Delta Logistics Demonstration (DLD) Rehearsal: The Government shall initiate a DLD Rehearsal within seven (7) working days prior to the start of the DLD. This is designed to ensure all required tools and equipment are staged correctly for the start of DLD. Details of this rehearsal will be further addressed in the DLD Plan, under Section 4.2.C, PM Responsibilities.

C.12.17.6 Failure to pass DLD shall result in the requirement for a follow-on Log Demo. The Contractor shall support the event with the same level of support as the DLD at no additional cost to the government in the event that a follow-on effort is required.

C.12.17.7 Management and Administration

C.12.17.7.1 The Contractor shall comply with the terms of this Statement of Work in this contract.

C.12.17.7.2 The Contractor shall be responsible for the administration, operation and conduct of all persons they employ to provide services under the Statement of Work to include: arranging for travel if necessary. The Contractor shall obtain installation and facility access with the assistance of the Government when necessary.

C.12.17.7.3 The Contractor shall manage and control the resources necessary to ensure timely achievement of all the requirements of the contract in a manner that is the most economical and beneficial to the Government. Management and control of subcontractor performance is implicitly part of this requirement.

C.12.17.8 Integrated Logistical Support

C.12.17.8.1 Contractor Logistics Demonstration Support Plan: The Contractor shall present its DLD Support Plan at the Start of Work Meeting. The Contractors DLD support plan shall identify the levels of DLD support effort for each of the requirements in this Statement of Work. The Contractor shall provide a new Contractor Demonstration Support Plan when changes to deliverable times and schedules occur. The Contractor shall notify the Government within two (2) working days if the Contractor foresees a support change. The notification shall include: (1) the reason for the change; (2) the revised support plan; and, (3) the resources being applied to ensure the DLD support is met.

C.12.17.8.1.1 The Contractor shall remain flexible to all scheduled planning in the event that the Government undergoes reduced support hours due to any pending Government furlough and reduced manning hours by supporting Government personnel.

C.12.17.8.2 Organizational Structure: The Contractor shall provide the Government with a list of all key functional Contractor personnel involved in this Statement of Work at the Start of Work meeting. This list shall be updated whenever key personnel changes

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are made to maintain accuracy. The Contractor shall immediately communicate this to the Integrated Logistics Support, Manager (ILSM)/COR in the program office, TACOM-ILSC Assured Mobility Systems, AMSTA-LCC-MA if there are personnel changes to the LD support by the Contractor.

C.12.17.9 Delta Logistics Demonstration Meetings and Reviews

C.12.17.9.1 Start of Work Meeting: A Start of Work Meeting shall be held no later than twenty-one (21) working days after contract award at the Contractors facility. Discussions at the meeting shall include: the Contractors DLD Support Plan, described in C.12.17.8.1, all identified risk areas and supporting mitigation plans, contract requirements, and establish lines of communications. The Government will provide initial guidance to the Contractor with respect to applicable standards and specifications interpretation of content within the Statement of Work, the Governments DLD Plan and supporting site preparation and other requirements as specified in the Statement of Work. The Contractor shall make available contract administration personnel, management, system technical experts and logistic support personnel required for this Statement of Work. The Contractor shall be responsible for recording meeting minutes and delivering them to the government within 5 working days of the Start of Work Meeting in accordance with CDRL A065.

C.12.17.9.2 Meetings: The content and location of each daily and weekly meeting shall be coordinated with and agreed upon by the Contractor and the Government at the Start of Work meeting. Daily meetings will be planned for one (1) hour prior to end of day DLD activities, and one (1) day prior to the weekly DLD meeting with the Product Manager (PM). The Contractor shall prepare minutes and an agenda for the weekly meeting in Contractor format (C.12.17.9.3 and C.12.17.9.4 below).

C.12.17.9.3 Agendas: The Contractor shall submit a DLD Review agenda, briefing charts and supporting documentation one (1) business day prior to each weekly meeting identified under C.12.17.9.2. All agendas shall be in Contractor format in accordance with CDRL A064 and shall consist of, at a minimum: the location, date (s) and duration of each meeting, a daily chronological listing of each topic to be discussed, current status, the time allotted for each topic, the name of the presenter and a status (or list) of action items/problems, expected completion dates identified at previous meetings.

C.12.17.9.4 Minutes: The Contractor shall prepare and submit weekly minutes conducted with the DLD Integrated Process Team (IPT) to include open and new action items within one (1) business day after each of the weekly meetings. All minutes shall be in Contractor format in accordance with CDRL A065 and shall consist of, at a minimum: meeting location, date (s) and duration, list of attendees, a status of open action items/problems, list of new action items/problems, and required resolution dates, summary of discussion and assigned action officer.

C.12.17.10 The above mentioned information has been incorporated to support the Government's regulatory requirement of achieving system supportability for the Warfighter through the successful completion of the U.S. Government Delta Logistics Demonstration (DLD) test event. The Contractor shall update the Buffalo A2 Technical Manual (TM) (TM-9-2355-352-23) with all comments and updates in preparation for the Government's submission into LOGSA for authentication.

C.13 SAFETY ENGINEERING AND HEALTH HAZARDS

C.13.1 Safety Engineering Principles: The contractor shall follow good safety engineering practices when making any modifications to the vehicle system and/or its components. Modifications to the system design and/or operational/maintenance procedures shall be developed with at least the following considerations:

C.13.1.1 Identify hazards associated with the modifications by conducting safety analyses and hazard evaluations. Analyses shall include operational, maintenance, and transport aspects of the equipment along with potential interfaces with subsystems.

C.13.1.2 Eliminate or reduce significant hazards by appropriate design or material selection. If hazards to personnel cannot be avoided or eliminated, steps shall be taken to control or minimize those hazards.

C.13.1.3 Locate equipment components and controls so that access to them by personnel during operation, maintenance, or adjustments shall not require exposure to hazards. All moving parts, mechanical power transmission devices, exhaust system components, pneumatic components and hydraulic components which are of such a nature or so located as to be a hazard to operating or maintenance personnel shall either be enclosed or guarded. Protective devices shall not impair operational functions. Examples of hazards to be considered include, but are not limited to: high temperature, chemical burns, electrical shock, cutting edges, sharp points, and toxic fumes above established threshold limit values.

C.13.1.4 Assure that suitable warning and caution notes are included in instructions for operation, maintenance, assembly, and repairs; and that distinct markings are placed on hazardous components of the equipment.

C.13.2 Safety Assessment Report (SAR): (CDRL A041)The contractor shall provide the Safety Assessment Report (SAR) to identify all safety and health hazards associated with the system to include any modifications. The SAR shall include safety and health hazard assessments completed as a result of system safety analyses, hazard evaluations, and any independent testing; which shall be conducted, documented, and updated as necessary when modifications are made. The SAR shall identify all safety and health features of the hardware, software, system design, and inherent hazards and shall establish special procedures and/or precautions to be observed by Government test agencies and/or system users. When updating the hazard list portion of the SAR, the contractor shall provide a description of any potential or actual safety and health hazards of the vehicle, the effects of the hazard, and when the hazard may be expected to occur under usual and unusual operating or maintenance conditions. The contractor shall identify actions taken to mitigate

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the risk associated with the hazards and categorize the risk before and after mitigation in accordance with MIL-STD-882D. MIL-STD-882C provides further information that may be used for guidance. Risks must be identified by hazard severity, hazard probability, and risk level. Mitigation actions include recommended engineering controls, safety features or devices, warning devices and procedures and training. The contractor shall include in the SAR copies of Material Safety Data Sheets (MSDS) for all hazardous materials incorporated into the system. Examples of hazards to be identified in the SAR include, but are not limited to: sharp edges/moving parts hazards, physical hazards (e.g. heat or cold stress, acoustical energy, ionizing and non-ionizing radiation, etc.), chemical hazards (e.g. flammables, corrosives, carcinogens, etc.), toxic fumes (exhaust emissions), electrical hazards, noise, whole-body vibration, compliance issues with regulatory organizations, fire prevention issues, and ergonomic hazards.

C.14 MANPRINT

C.14.1 Manpower and Personnel Integration (MANPRINT). Comprehensive management and technical program that focuses attention on human capabilities and limitation throughout the system life cycle. MANPRINT's goal is to optimize total system performance at acceptable cost and within human constraints. The MANPRINT program shall include aspects of all seven domains (Manpower, Personnel, Training, Human Factors Engineering, System Safety, Health Hazards, and Soldier Survivability). The contractor will be actively involved in the Government's MANPRINT program and participate in the MANPRINT IPT meetings.. The contractor will utilize AR 602-2 as a guide for the MANPRINT program.

C.14.2 Manpower, Personnel, and Training (MPT): The contractor will ensure that soldier-related manpower and training cost are minimized while retaining maximum combat effectiveness through system design and the optimum use MPT resources . All designs and modifications shall be analyzed to ensure maximum use of available MPT resources within the appointed unit. The contractor shall identify MPT shortfalls or issues and implement appropriate resolutions. The contractor will utilize AR602-2 as a guide for the MPT.

C.14.3 Human Factors Engineering (HFE). Human Engineering principals and design standards shall be applied in the vehicle design, systems integration and human-machine interfaces. The contractor shall assure that the vehicle operation, maintenance, repair activities and procedures shall accommodate a wide range of individual physical capabilities, which requires the range from 5th percentile female to the 95th percentile male. The contractor shall identify HFE shortfalls or issues and implement appropriate resolutions. The contractor shall utilize MIL - STD-1472F as a guide for managing HFE .

C.14.4 Soldier Survivability. The contractor will apply principal and design standards in the vehicle system, which will reduce detectability, and minimize the soldier physical and mental fatigue. The contractor shall identify Soldier Survivability shortfalls or issues and implement appropriate resolutions. The contractor will utilize AR 602-2 as a guide for Soldier Survivability.

C.15 HAZARDOUS MATERIALS MANAGEMENT (CDRL A042)

C.15.1 The Contractor shall prepare a Hazardous Material Management Report which, at a minimum, shall identify all hazardous materials required for system production, and sustainment, including the parts/process that requires them. This report should be prepared in accordance with National Aerospace Standard 411, section 4.4.1.

C.15.2 Hazardous Materials. No asbestos, radioactive materials, mercury, hexavalent chromium (electroplating and coatings processes), cadmium (electroplating), or other highly toxic or carcinogenic materials as defined in 29 CFR 1910.1200 shall be used on the Buffalo without prior approval from the Government. Class I and Class II Ozone Depleting Substances shall not be used. This applies to both contractors and subcontractors.

C.16 EQUIPMENT CONTROL RECORD (DA FORM 2408-9)

C.16.1 The Contractor shall prepare a DA Form 2408-9, Equipment Control Records (Government furnished form) for each vehicle it delivers. The Contractor shall prepare the form in accordance with the instructions in paragraph 5-7 c (3) Acceptance and registration of DA PAM 750-8, dated 25 Feb 05, to report acceptance of the Buffalo MPCV into the U.S. Army inventory. A blank copy of the form is enclosed at Attachment 9. The contractor shall have the Defense Contract Management Agency (DCMA) Quality Assurance Representative (QAR) complete blocks 22 and 23 as the person accepting the item into the Army inventory. After the DCMA QAR completes blocks 22 and 23, the contractor shall distribute the DA Form 2408-9 as follows:

C.16.1.1 Submit the control copy (copy # 1) within five working days to:

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

C.16.1.2 Submit the National Maintenance Point (NMP) copy (copy #2) within five working days to:

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

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C.16.1.3 Place Log Book copy (copy # 3) in a dry, protected location, secured in the operator station, and shipped with each vehicle.

C.17 WARRANTY**C.17.1 Requirement For Warranty**

The contractor shall provide its standard commercial warranty with all applicable pass through warranties.

C.17.2 (CDRL A043)The contractor shall submit a report reflecting all of the warranty claims processed on each vehicle within the appropriate reporting period. In addition to the data required by the DID, the report shall include the number of operating hours on the vehicle at the time of fault. The report shall also contain the warranty implementation date by vehicle serial number, shipping destination, and DODAAC.

C.18 TRAINING

C.18.1 Staff Planners Training: (CDRL A044) The contractor shall develop and conduct an introduction to the vehicle for Government support personnel prior to initial 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. 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 a facility negotiated by the Government. The contractor shall conduct training for a maximum of 12 personnel. Contractor may use commercially available material for this course.

C.18.2 (CDRL A045) Operational Tester Training: The contractor shall develop and conduct an Operational/Technical Training Course for Government personnel and Test Players prior to testing. Training dates will be negotiated between the contractor and Government. The training will cover system operating principles and procedures, characteristics, capabilities and limitations, and the maintenance troubleshooting and repair procedures required to satisfy Government testing. The training shall be 70% hands on training. The maximum length of the training class is 40 hours. The training shall be conducted at a facility negotiated by the Government. The contractor shall conduct training for a maximum of 12 personnel. A final copy of the training material will be delivered to the government.

Sample Course Outline

Vehicle Introduction and Familiarization

Controls and Instrumentation

Safety

Operator Preventive Maintenance Checks & Services (PMCS) - Before Operation of the Vehicle

Operator Preventive Maintenance Checks & Services (PMCS) - During ...Operation of the Vehicle continued...

Installation, Operation, and Disconnection of the Attachments & Attachment PMCS

Operator Preventive Maintenance Checks & Services (PMCS) - After

Maintenance Significant Items (Items required to be maintained during the test and anticipated problem areas)

Review and Critique

C.18.3 New Equipment Training (NET) (CDRL A046) (CDRL A056) Program Training Materials. The Contractor shall deliver a Plan of Instruction, Instructor Lesson Plans and a Student Training Guide and a course outline. Training Materials shall contain equipment and component description, functional data, training handbooks that include, by sub-component for BUFFALO operation, setup and disassembly, inspection, testing, troubleshooting, and safety procedures. All training materials shall be formatted and delivered in accordance with Lesson Guides.

C.18.4 Instructor and Key Personnel (I&KP). The Government will use the Operator and the first maintenance I&KPT to verify the NET Training material. The Contractor shall perform three I&KP classes., one operator and two maintenance courses. The Contractor will use the NET programs developed in C.18.5 to train instructor and key personnel. The contractor shall provide vehicles, special and common tools, parts, training aides, materials, and facilities to conduct training. Target the courses for individuals who are instructors, skilled operators, and mechanics. The second Field Maintenance I&KP class will be required to train Logistics Assistance Representatives (LARs).

C.18.5 NET Training Courses: Two courses shall be developed for the BUFFALO;

- a. Operator and Operator Maintenance
- b. Field Maintenance

C.18.5.1 OPERATOR: The course shall be directed to operators of the Buffalo MPCV, covering complete operation, safety, and Operator Preventive Maintenance Checks and Services (PMCS). The course shall be 70% hands on. The Course will be 40 hours in length.

C.18.5.2 FIELD MAINTENANCE: The course shall be directed to the maintainers of the BUFFALO, covering PMCS, troubleshooting, diagnosis and repair of engine, fuel, transmission, axle, braking, electrical, hydraulic, pneumatic, boom, and ancillary systems. The course shall be directed toward new technologies and items not currently in the Army system. The course shall be no longer than 80 hours in length.

C.18.5.3 Training Course Control Document: For each course, the contractor shall develop a Training Course Control Document describing

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the course content (subject, topics, task), training material, types and duration of instruction, and resources required to conduct training in an institutional setting. The Training Course Control Document shall contain front matter, introduction, course description data, outline of instruction summary, curriculum outline of instruction, course summary and presentation schedule.

C.18.6 Course Material Format/Media & Deliveries: Training materials shall be contractor and commercial materials, supplemented for militarization of the equipment. Develop all student and instructor lesson material/guides used to conduct the training course. Provide the material in both hard copy and editable digital format.

C.18.7 Training Course Completion Report: (CDRL A047) The contractor shall complete and deliver a Training Course Completion Report upon completion of each class. The report shall include the course name, vehicle system, dates, student names, social security number (if military), home unit and address, and evaluation of student performance.

C.18.8 New Equipment Training Classes - <Option>

C.18.8.1 Option: The Government may require the Contractor to conduct New Equipment Training (NET) to take place at Government sites, at the using units locations. Trainees may either be Government personnel or Government support contractors. Class size shall be no more than twelve (12) students. Course requirements and course content shall utilize Government approved training materials. The Government will provide the Contractor 30 days notification for CONUS classes. The Government will provide the Contractor 90 days notification for OCONUS classes. It is estimated that a total of TBD classes per year will be required. Duration and number of courses will be defined upon exercise of option/delivery order. The per class rate is exclusive of subsistence, lodging, and incidental expense incurred for NET. The Government will pay these expenses on a cost reimbursable basis.

C.18.9 ASAT Training <Option>

C.18.9.1 ASAT Course Material Format/Media & Deliveries (CDRL A048)

The contractor shall develop the training materials using the Automated Systems Approach to Training (ASAT) software in support of course design and development for TRADOC Schools. The Government will provide access to the ASAT software. ASAT software can be downloaded at the ASAT homepage, [://www.asat.army.mil](http://www.asat.army.mil). This software will allow for interactive course design, development, pre-authoring, and authoring that is required by TRADOC. Specifically, the ASAT software supports task development, standardized critical task information, and lesson plan/Training Support package (TSP) production capabilities. The contractor shall deliver all course control documents and training materials in an editable ASAT electronic format.

C.19 INDIVIDUAL UNIQUE IDENTIFICATION DESCRIPTOR (CDRL A049)

C.19.1 The Contractor shall deliver a IUID component candidate list of items qualifying for the IUID, per DFARS Clause 252.211-7003 Item Identification and Valuation. The Government will review, make changes to, and provide approval to the IUID candidate list. The Government will provide the final IUID list after it has evaluated the information and determined which components will require a IUID. See Attachment 10. (CDRL A050)

Examples of applicable candidates are: Engine, Transmission, Axles, etc.

C.19.2 The Contractor shall mark each Buffalo MPCV with an Individual Unique Identification Descriptor (IUID). The IUID is to be developed in accordance with MIL-STD-130M, or the most recent version of this document.

C.19.3 The Contractor shall use MIL-STD-130M and MIL-STD-129 to determine the best method in which to mark the Buffalo MPCV.

C.19.4 As the requiring agency, the Government has determined that the Contractor will develop the IUID 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:

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

C.19.5 (CDRL A050). The Contractor shall invoice using a Receiving Report. The data required in this report shall include the data specified in C.19.4 This report is due in conjunction with the delivery of the Buffalo MPCV. It is the Contractors responsibility to submit receiving reports electronically into the DoD Wide Area Workflow Receipt and Acceptance System (WAWF). If the Contractor cannot use WAWF for IUID, 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](http://www.acq.osd.mil/dpap/UID/DataSubmission.htm)
[://www.dcmi.mil](http://www.dcmi.mil) Under Electronic Invoicing

C.19.6 It is recommended that the Contractor have a portion of its IUID submission reports validated prior to submitting all IUID reports to WAWF. This can be done by sending an email to the Unique Identification Program Office (info@uniqueid.org). Include your

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name, organization, phone number, email address, and the file format you will be using.

C.20 RADIO FREQUENCY IDENTIFICATION.

In addition to the requirements in DFARS 252.211-7006, Active RFID tags shall also be applied to each vehicle, BII, 90 Day Spares and Tires.

C.21 INTEGRATED PRODUCT TEAM:

The Contractor and the Government shall use an Integrated Product Team (IPT) as the primary management vehicle for monitoring the status of the work described in this contract. The IPT will provide a means for coordinating/monitoring schedules and performance. IPT members will include personnel designated by the Contractor, the Contracting Officer, the Contracting Officer's Technical Representative (COTR), and other personnel designated by the Government, which may include Government support Contractors. The Team will use Alpha Contracting techniques to expedite performance of this action, when advantageous to progress.

C.22 PARTNERING:

The Government proposes to enter into a voluntary Partnering arrangement with the Contractor as addressed in the Army Material Command (AMC) Guide: "Partnering for Success. Partnering is a commitment between Government and industry to improve communications and avoid disputes. This is accomplished through an informal process with the primary goal of providing American soldiers with quality supplies and services, on time, and at a reasonable price. Proposals shall include any potential costs associated with the Partnering concept. Information on Partnering can be found at the following website: [://www.amc.army.mil/amc/command_counsel/partnering.html](http://www.amc.army.mil/amc/command_counsel/partnering.html)

C.23 LOGISTICS DEVELOPMENTAL PROCESS

Development of Government Logistics data has a specific and defined process flow. The sequential flow of specific developmental data is required. (Attachment 0020 Logistics Development Process) Maintenance Analysis (MA) and Level of Repair Analysis (LORA) are products which feed the development of the Maintenance Allocation Chart (MAC) and technical manuals (TMs). These initial products are the road map for the Government and contract developers to assess and develop maintenance procedure and planning for the specified equipment. Contract data deliverables shall not be accepted out of sequence. The initial draft MA and LORA (CDRL A012) must be deemed usable by the Government prior to initial draft submittal of the MAC (CDRL A016). The initial draft MAC submittal must be deemed usable by the Government prior to initial draft TM submittals. (CDRLs A023 and A024) There should be a succinct correlation between all of these Logistics products. It is understood that these items are living documents throughout the life of the contractual logistics development process; this is specifically for updates and clean up of raw data. Initial maintenance process should remain static throughout the life of the developmental effort. It is imperative to deliver usable products sequentially as specified by delivery requirements in the CDRLs to avoid delinquency on subsequent CDRL deliverable requirements. Attachment 0020 Logistics Development Process is a recommended guide to developmental process to assist in ensuring program success. This process flow is flexible and adaptable, proper sequencing however is required for successful development.

C.24 REQUIRED SUPPORT

C.24.1 Vehicle Hand-Off

C.24.1.1 The Contractor will be responsible to hand off all equipment deliverable under this contract to each gaining unit. The Contractor will perform the hand off and administer the vehicle warranty. The Contractor shall delivery all the vehicles ready to operate prior to New Equipment Training. The hand-off effort includes:

C.24.1.2 Assembly of the vehicle to a full operational configuration. The Contractor shall notify the Government of all tools and equipment required to complete the re-assembly. All tools shall be contained in the unit's BII or be Common Tool kits.

C.24.1.3 Inventory of any material shipped with the vehicle, e.g. technical publications, special tools, intial service packages.

C.24.1.4 De-process each vehicle (includes all the activities to assure vehicle is in operating order).

C.24.1.5 Activation of the warranty, which includes stamping the effective date (date of delivery to gaining unit) on the vehicle warranty data plate, discussing with the unit the terms and details of warranty administration, and pointing out the warranty information included in the TMs. The Contractor shall also notify the Contracting Officer in writing or by email of the warranty implementation date by serial number, shipping destination, and DoDAAC once the vehicle is handed off.

C.24.1.6 Allow time for the receiving unit to inventory the materials shipped with the vehicle.

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SECTION G - CONTRACT ADMINISTRATION DATA

LINE	PRON/ AMS CD/ MIPR/ <u>ITEM</u>	OBLG <u>STAT</u>	JO NO/ <u>ACCT ASSIGN</u>	ACRN	PRIOR AMOUNT	INCREASE/ DECREASE	CUMULATIVE AMOUNT
5100AU	P116M1792T	2	A.0010970.1.1.1.2.4	AM \$	0.00 \$	983,000.00 \$	983,000.00
						NET CHANGE \$	983,000.00

ACRN	ACCOUNTING CLASSIFICATION	INCREASE/ DECREASE
AM	021 201120132035 A5XDV D02903AVFRE 3101 L034759950 A.0010970.1.1.1.2.4	021001 \$ 983,000.00
		NET CHANGE \$ 983,000.00

	PRIOR AMOUNT OF AWARD	INCREASE/DECREASE AMOUNT	CUMULATIVE OBLIG AMT
NET CHANGE FOR AWARD:	\$ 515,152,979.53	\$ 983,000.00	\$ 516,135,979.53

LINE	ACRN	EDI/SFIS ACCOUNTING CLASSIFICATION	
5100AU	AM	021 201120132035 A5XDV D02903AVFRE	3101 L034759950 A.0010970.1.1.1.2.4 021001

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SECTION J - LIST OF ATTACHMENTS

<u>List of</u> <u>Addenda</u>	<u>Title</u>	<u>Date</u>	<u>Number</u> <u>of Pages</u>	<u>Transmitted By</u>
Exhibit A	CONTRACT DATA REQUIREMENTS	23-SEP-2013	087	ELECTRONIC
Attachment 0042	DELTA LOG DEMO PLAN	23-SEP-2013	031	IMAGE EMAIL