27 December 2000

FISCAL YEAR 2002

STATEMENT OF WORK

FOR

INSPECT, REPAIR ONLY AS NECESSARY (IROAN)

OF THE

LIGHT ARMORED VEHICLE (AT)

NSN 2320-01-123-1609

SOW-02-832-1-08652A-2/1
Prepared by

MARINE CORPS LOGISTICS BASES

(CODE 832-1)

Albany, Georgia

TABLE OF CONTENTS

PARAGRAPH	TITLE	PAGE
1.0	SCOPE	1
1.1	Background	1
2.0	APPLICABLE DOCUMENTS	1
2.1	Military Specifications	1
2.2	Military Standards	1
2.3	Other Government Documents and Publications	1
2.4	Industry Standards	2
3.0	REQUIREMENTS	3
3.1	General Tasks	3
3.1.1	Program Management	3
3.1.1.1	Earned Value Management	4
3.1.1.1.1	Work Breakdown Structure (WBS)	4
3.1.1.1.2	Integrated Baseline Review	4
3.1.2	Production Management	4
3.1.2.3	Stages of Corrosion	4
3.1.3	Configuration Management	5
3.1.3.1	Configuration Identification	5
3.1.3.2	Configuration Control	5
3.1.3.3	Configuration Status Accounting (CSA)	6
3.2	Inspect Repair Only As Necessary (IROAN)	6
3.3	Specific Tasks	6
3.3.1	Phase I-Limited Technical Inspection (LTI)	6
3.3.2	Phase II-IROAN Base Line Vehicle	6
3.3.2.3	Government Furnished Equipment (GFE)/ Government Furnished Materiel (GFM)	6
3.3.2.4	Contractor Furnished Materiel (CFM)	7
3.3.2.5	Hull Crack Inspection & Repair	7
3.3.2.6	Painting	8
3.3.2.6.1	Quality Assurance for Surface Preparation and Painting	8
3.3.2.6.2	Corrosion Prevention and Control (CPAC) Procedures	8
3.3.3	Phase III-Inspection, Testing and Acceptance	8
3.3.3.1	Inspection	8
3.3.3.2	Testing	8
3.3.3.3	Acceptance	9
3.3.3.3.1	Final Inspection and Acceptance	9
3.3.3.3.2	Correction of Deficiencies	9
3.3.4	Phase IV-Packaging, Handling, Storage and Transportation	9
3.4	Quality Assurance Provisions	10
4.0	REPORTS	11

APPENDIX	TITLE	PAGE
A	Deliverable Schedule	***A-1***
B	Contractor Work Breakdown	***B-1***
C	Modification Instructions	***C-1***

Statement of Work
For the IROAN of the
Light Armored Vehicle, Anti-Tank (LAV-AT)
NSN 2320-01-123-1609

1.0 SCOPE. This Statement of Work (SOW), along with the Inspect, Repair Only As Necessary (IROAN) Standard Depot Maintenance Manual (DMM) 2350-50/2B, sets forth tasks and identifies the work efforts that shall be performed by the contractor as minimum requirements to assemble, integrate, make fully operational, adjust, install, test, and inspect the Light Armored Vehicle-Anti Tank (LAV-AT). This SOW sets forth guidelines by which the LAV-AT shall be refurbished, repaired, and restored to Condition Code "A," utilizing procedures contained in DMM 2350-50/2B, to include Modification Instructions (MIs), Technical Instructions (TIs) and Engineering Change Proposals (ECPs).

1.1 Background. IROAN is defined as "That maintenance technique which determines the extent of work and parts required to restore equipment, components, or assemblies to prescribed maintenance serviceability standards by utilizing all available diagnostic equipment and test procedures in order to minimize disassembly and parts replacement."

2.0 APPLICABLE DOCUMENTS. The following documents form a part of this SOW. In the event of conflict between the documents referenced herein and the contents of this SOW, the content of this SOW shall be the superseding requirement. Unless otherwise specified, the issues of these documents are those listed in the current issue of the Department of Defense Index of Specifications and Standards (DoDISS).

2.1 Military Specification

MIL-C-53039	Coating, Aliphatic Polyurethane, Single Component, Chemical Agent Resistant Coating
MIL-C-46168	Coating, Aliphatic Polyurethane Chemical Agent Resistant Coating
MIL-*C*-64159	Water Reducible Chemical Agent Resistant Coating
MIL-PRF-22750	Coating, Epoxy, High Solids

2.2 Military Standards

MIL-STD-129	DOD Standard Practice For Military Marking

2.3 Other Government Documents and Publications. The following documents and publications form a part of this SOW to the extent specified herein. Unless otherwise specified, the issues are those named in this SOW.

ATPD 2241	Vehicles Wheeled: Preparation for Shipment and Storage
TM 08594A-25/1	LAV Repair Welding Procedure
TM 4750-15/1	Painting and Registration Marking for Marine Corps Combat and Tactical Equipment
TM 4750-15/2-1	Camouflage Patterns
TM 8A192C-34&P/A	Direct and General Support Maintenance, Engine Diesel
DMM 2350-50/2B	IROAN Manual for LAVs
TM 4795-12/1	Corrosion Prevention and Control for Marine Corps Equipment
TM 4795-34/2	Rustproofing and Underbody Coating Procedures for Tactical Vehicles, Trailers, and Engineering Equipment
TB 9-2300-245-50	Chassis Dynamometer Procedures and Test Standards Under Simulated Load Conditions
TB 9-2300-388-50	Acceptance Testing of Reconditioned Combat and Tactical Vehicles
DOD 4000.25-1-M	MILSTRIP Manual
NAVICPINST 4491.2A	Requisitioning of Contractor Furnished Material From The Federal Supply System
NAVCOMP Volume 5	Navy Comptroller Manual, Volume 5
12314764	***Equipment Preservation Data Sheet (EPDS) LAV-AT***

Military Handbooks (For Guidance)

MIL-HDBK-61	***Configuration Management Guidance***

2.4 Industry Standards.

ANSI/ISO/ASQC Q9002-1994	Quality Systems Model For Quality Assurance In Production, Installation, and Servicing
SSPC-SP-10/NACE No.2	Joint Surface Preparation Standard Near White Blast Cleaning

JESD625-A ***Requirements for Handling Electrostatic-Discharge Sensitive (ESDS) Devices***

Industry Standards (For Guidance)

ANSI/EIA-649 ***National Consensus Standard for Configuration Management***

Copies of Military Standards and Specifications are available from the DOD Single Stock Point, Document Automation and Production Service, Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, Telephone (215) 697- 2179 or DSN 442-2179, or http://www.dodssp.daps.mil. Copies of publications and other Government documents required by the contractor in connection with specific SOW requirements shall be obtained from: Commander, Marine Corps Logistics Bases, Attn: Publication, Branch (Code 876), Albany, Georgia 31704-5000, ***telephone COM. (229) 639-5818/19 or DSN 567-5818/19. Copies of Equipment Preservation Data Sheets (EPDS) may be obtained from Commander, Attn: Logistics Support Section (Code 822-1), 814 Radford Blvd., Suite 20320, Albany, Georgia 31704-0320, telephone (229) 639-6786 or DSN 567-6786. Copies of engineering drawings/documents, ECPs, and Requests for Deviation (RFDs)*** may be obtained by accessing the Joint Engineering Data Management Information Control Systems (JEDMICS). Authorization to access JEDMICS may be obtained by contacting Commander, Attn: Engineering Data Management Branch (Code 851-3), 814 Radford Blvd., Suite 20320, Albany, Georgia 31704-0320, telephone ***(229) 639-6410***, or DSN 567-6410. ***Access to engineering drawings/documents, ECPs, and RFDs*** for read purposes only, may be obtained by accessing the Configuration Management Information System (CMIS). Authorization to access CMIS may be obtained by contacting ***Commander, Attn: Logistics Data Systems (G647-1), 814 Radford Blvd., Suite 20323, Albany, Georgia 31704-0323, telephone (229) 639-6143***, or DSN 567-6143. Copies of SSPC-SP-10 can be obtained from: SSPC-The Society for Protective Coatings, 40 24th Street, 6th Floor, Pittsburgh, PA 15222-4643.

.

3.0 REQUIREMENTS

3.1 General Tasks. In fulfilling the specified requirements, the contractor shall render the following tasks ***in support of the Master Work Schedule (Appendix A):***

3.1.1 Program Management. The contractor shall establish and maintain management operations that shall include the following areas:

(a) Program Planning and Control
(b) Subcontractor Control
(c) Financial Management
(d) Data Management
(e) Management Accountability for Government Furnished Equipment, Materiel, or Information
(f) Risk Management

The contractor shall establish and implement a program management office function to manage all technical performance, including reliability, maintainability, ILS (for locally

procured items or Engineer Change Proposals), cost, schedule, and data delivery requirements of the contract.

3.1.1.1 Earned Value Management. Earned Value Management (EVM) is a tool that allows both government and the contractor program managers to have visibility into technical, cost, and schedule progress on their contracts. EVM shall be used on the LAV-AT IROAN program to ensure that program cost, schedule, and performance objectives are integrated, tracked, and reported. (paragraph 4.1.7 ***of this SOW***)

3.1.1.1.1 Work Breakdown Structure (WBS). The contractor shall develop a task matrix keyed to the WBS (Appendix B) in sufficient detail to identify contractor and subcontractor responsibilities.

3.1.1.1.2 Integrated Baseline Review. An Integrated Baseline Review (IBR) shall be conducted to seek mutual understanding of and agreement to contractor planning for LAV-AT IROAN. The IBR shall be held at the contractor's sight no later than 180 days after contract. Fourteen days prior to IBR, the contractor shall provide Program Manager (PM)-LAV with it's System Description, WBS, WBS Dictionary, Responsibility Assignment Matrix, sample master, and detail schedules, as well as sample Work Authorization Documents and their flows. The IBR shall be chaired by PM-LAV, and shall address the following issues as a minimum:

- Verify technical content of Performance Measurement Baseline (PMB) and accuracy of related resource (budgets) and schedules.
- Ensure that there is a logical sequence of effort planned consistent with the IROAN schedule.
- Conduct a technical assessment of the earned value methods that will be used to measure progress to assure that objective and meaningful performance data will be provided.
- Establish a joint understanding of the contractors EVMS, to serve as the basis for future reviews of EVM planning, status, and estimates at completion to ensure that baseline integrity is maintained throughout the life of the contract.
- Tailoring of reporting to the minimum level required for effective management and oversight.

3.1.2 Production Management. Production Management shall provide materials, labor, facilities, and services necessary to troubleshoot, test, diagnose, engineer, integrate, install, repair, and adjust as required to make fully functional the LAV-AT.

3.1.2.1 MI/ECP kits will be provided by the LAV Branch (Code 832-1). In the event that the kits are unavailable, it shall be the responsibility of the contractor to contact LAV Branch (Code 832-1) for further instructions. The contractor shall perform installation and testing. All special tools and test equipment required to perform any task referenced in this SOW are identified in the applicable technical publications.

3.1.2.2 Marine Corps Logistics Bases (Code 832-1) personnel at their discretion shall conduct final on-site testing. This will only be done during normal contractor working hours.

3.1.2.3 Stages of Corrosion. Stages of corrosion One through Four are defined in TM 4795-34/*2*.

Any component or structural member with Stages One or Two corrosion may be re-used (unless otherwise designated for replacement as a part of this program), and shall be cleaned, the surface prepared, and painted in accordance with the guidelines set forth in this SOW. Any component or structural member with Stage Three corrosion shall be repaired or replaced as deemed most economical for that part. Repairs shall be accomplished prior to surface preparation and painting. Repaired or replaced components or structural members which had Stage Three corrosion shall be cleaned, the surface prepared, and painted in accordance with the guidelines set forth in this SOW. Any component or structural member with Stage Four corrosion shall be replaced. Replaced components or structural members which had Stage Four corrosion shall be cleaned, the surface prepared, and painted in accordance with the guidelines set forth in this SOW.

3.1.2.3.1 The contractor shall be responsible for all structural, electrical, optics, fire control, mechanical, surface preparation and painting requirements associated with the repair and restoration of the LAV-AT, as specified in this SOW. All corrosion shall be removed and treated in accordance with TM 4795-12/***1***.

3.1.3 Configuration Management.

3.1.3.1 Configuration Identification. The contractor shall ensure that when an assembly or component has been disassembled for repair, all parts identified as mandatory replacement parts by the applicable technical manuals shall be replaced. The contractor shall ensure that those items listed as 100% replacement in DMM 2350-50/2B shall be replaced. The Maintenance Expenditure Limit (MEL) of 65% shall not be exceeded for the repair of assemblies, components and vehicles unless specifically authorized by Code 832-1 or their authorized representatives. All required data plates shall be in place and shall be legible. The IROAN data plate shall be constructed of metal and reflect the following (refer to Figure 1):

- The contractor that performed the IROAN.
- Overhauled to limited standards in accordance with IROAN Procedure for LAV-AT.
- Odometer reading at Limited Technical Inspection _____.
- USMC No._____ Date_____ (of IROAN)
- Vehicle Completely Stripped And Repainted. Interior Yes/No Exterior Yes/No
- Chemical Agent Resistant Coating (CARC)/Camouflage Topcoat Used MIL-SPEC.

CONTRACTOR _____
OVERHAULED TO LIMITED STANDARDS IN ACCORDANCE WITH IROAN PROCEDURE FOR LAV-AT.
ODOMETER READING AT LIMITED TECHNICAL INSPECTION. _____
USMC NO. _____ DATE _____
VEHICLE COMPLETELY STRIPPED AND REPAINTED.
INTERIOR ____ EXTERIOR ____
CARC/CAMOUFLAGE TOPCOAT USED _____

Figure 1

3.1.3.2 Configuration Control. The contractor shall apply configuration control procedures to established configuration items. The contractor shall not implement configuration changes to an

item's documented performance or design characteristics without receiving prior written authorization. ***If it is necessary to temporarily depart from the authorized configuration, the contractor shall prepare and submit a Request for Deviation. MIL-HDBK-61 (paragraph 4.3 and Table 4-9) and ANSI/EIA-649 (paragraph 5.3.4) provide guidance for preparing this configuration control document.***

3.1.3.3 Configuration Status Accounting. All TIs, MIs, and ECPs not previously applied to the LAV-AT, and current as to the date of the current contract, shall be applied during the IROAN. A list of all technical publications, TIs, MIs and ECPs are provided by Appendix A to DMM 2350-50/2B, however Appendix C of this SOW must be checked monthly for recently published changes. Final configuration of the vehicle will be submitted to Code 832-1. (Paragraph 4.1.6)

3.2 Inspect Repair Only As Necessary (IROAN) Objectives and Functions. After IROAN, the LAV-AT shall have as a minimum the following characteristics:

- Latest Configuration as identified by current contract
- Maintainable
- Serviceable Condition Code "A"
- All vehicle systems and components shall operate as intended herein

3.3 Specific Tasks. The following tasks describe the different Phases of the IROAN for the LAV-AT:

- Phase I Limited Technical Inspection
- Phase II IROAN
- Phase III Inspection, Testing, and Acceptance
- Phase IV Packaging, Handling, Storage and Transportation (PHS&T)

3.3.1 Phase I – Limited Technical Inspection (LTI). A LTI shall be completed within thirty days from the vehicle arriving on the base for each LAV-AT under the provisions of this SOW using the contractor diagnosis, inspection, and testing techniques to determine the extent of work and parts required. ***Any items missing on the LAV-AT shall be reported.*** The LTI can be in the contractor's format to best facilitate their work effort. The resultant LTI documentation shall be maintained by the contractor.

3.3.2 Phase II IROAN Base Line Vehicle.

3.3.2.1 Information recorded on the IROAN LTI Sheets during Phase I shall be used as a guide to repair the LAV-AT in accordance with this SOW.

3.3.2.2 All testing, inspecting, removal, disassembly, maintenance, repairs, installation, and final checks performed will comply with DMM 2350-50/2B.

3.3.2.3 Government Furnished Equipment (GFE)/Government Furnished Materiel (GFM). GFE is government owned equipment authorized by contract for use by a commercial/Government contractor. It is neither consumed during production nor incorporated into any product. GFM is

materiel furnished to a contractor that will be consumed during the course of production or incorporated into the product being manufactured/remanufactured under a contract/statement of work. In the event the Marine Corps does have GFE/GFM requirements the Management Control Activity (MCA/***Code*** 827-2), Marine Corps Logistics Bases, Albany, Georgia, will coordinate required GFE/GFM and will maintain a central control on Marine Corps assets in the Contractor's possession. The MCA will forward a GFE Accountability agreement to the Contractor Facility for signature to establish a chain of custody and property responsibilities for Marine Corps assets.

3.3.2.4 Contractor Furnished Materiel (CFM). The Marine Corps has adopted the Navy's procedures regarding CFM (NAVICPINST 4491.2A). In the event that CFM is required for repair parts, the contractor shall requisition repair parts through the DoD Supply System. DoD 4000.25-1-M (MILSTRIP), Chapter 11 authorizes contractors to requisition through the DoD Supply System.

3.3.2.5 Hull Crack Inspection & Repair. After the completion of the LTI (Ref. 3.3.1), all (100%) LAV-AT hulls shall be prepared for crack inspection and application of corrosion resistant coating. The hull shall be disassembled, as required so abrasive blasting can be accomplished for internal and external paint removal, crack inspection and repair and repainting. After blasting, the hull shall be cleaned in preparation of crack inspection. The crack inspection shall be performed in accordance with this SOW (Paragraph 3.3.2.5.1), the Depot Maintenance Manual DMM 2350-50/2B, Chapter 4, Section II (Hull Welded and Machined) and TM 08594A-25/1.

3.3.2.5.1 The initial hull crack inspection shall be beyond a visual inspection and in accordance with DMM 2350-50/2B. As a minimum, inspection shall be concentrated in the following areas.

1. All Strut Caps & lower Shock Towers.
2. Right Hand Forward upper Sidewall aft of #2 strut cap.
3. Right Hand Sidewall around the exhaust System Outlet, around the forward drain hole and around vision blocks and water can mounts.
4. Left Hand Side Plate around #1 and #2 Strut caps, vision blocks and appurtenances.
5. Complete Rear Wall and Doors and around tow pintle.
6. Roof Plates around smoke grenade launchers, and aft of Weapon Station and around launcher supports.
7. Left Hand and Right Hand Side walls near launcher supports.
8. All hatches, doors and grills.
9. Around all tiedown, lifting and tow eyes.

3.3.2.5.2 All cracks discovered shall be classified and repaired in accordance with the requirements of TM 08594A-25/1. The vehicles crack repair history shall also be evaluated to determine if additional repairs are required to restore ballistic integrity. All Crack and Hull Weld Repair Sheets and recommended repair procedures shall be provided to Code 832-1 or their authorized representative (paragraph 4.1.5 ***of this SOW***). In the event that plate replacement is necessary, only Lukens Steel or Diesel Division General Motors are to be utilized to procure the high hard steel replacements. The customer reserves the right to perform in process or final

inspections and/or audits of the crack inspection and repair process as required.

3.3.2.5.3 The Trim Vane and the turret shall be removed prior to abrasive blasting of the hull. These components shall be evaluated per DMM 2350-50/2B to determine their condition. The paint shall also be evaluated to determine if stripping and repainting is required per 3.3.2.6.

3.3.2.6 Painting. After crack inspection and repair, the hull surfaces and applicable external components shall be prepared for painting. The hull shall be cleaned to a "near white" metal finish in accordance with SSPC-SP-10/NACE No.2, with a surface profile of 0.002" to 0.0025" (2 to 2.5 mils). Surface preparation for painting of the hull and components shall be in accordance with TM 4750-15/1. The prepared hull and components shall then be primed. They shall then be painted with CARC paint using either MIL-C-53039 or MIL-C-46168 for exterior surfaces, or MIL-PRF-22750 for interior surfaces. Once MIL-***C***-64159 becomes available, it shall be used in place of MIL-C-53039 and MIL-C-46168. Unless otherwise specified, painting shall be performed in accordance with TM 4750-15/1. The paint scheme shall be United States and European Verdant, 3-Color Camouflage Pattern, per drawing number referenced in TM 4750-15/2-1. Glass, tires, hoses, belts, and other rubber parts shall not be painted.

3.3.2.6.1 Quality Assurance for Surface Preparation and Painting. The contractor shall implement a Quality Assurance (QA) program for surface preparation and painting in accordance with the applicable sections of TM 4750-15/1 as specified in Table I.

3.3.2.6.2 Corrosion Prevention and Control (CPAC) Procedures. Unless otherwise specified in the Depot Maintenance Manual DMM 2350-50/2B the contractor shall apply/install CPAC materials to components prior to or upon final assembly, in accordance with Appendix B-1 of TM 4795-12/***1***.

3.3.2.7 All work performed on electrical and electronic parts and assemblies during IROAN shall be performed in accordance with ***JESD625-A*** to minimize the negative effects of electrostatic discharge on electronic parts, assemblies, and equipment on the LAV-AT.

3.3.2.8 At the induction stage of the vehicle, the contractor shall contact the Light Armored Vehicle Branch (Code 832-1) in any case where the ***Single Channel Ground and Air Radio Set*** (SINCGARS) hardware is missing.

3.3.3 Phase III - Inspection, Testing, and Acceptance.

3.3.3.1 Inspection. Inspection of the vehicle shall be conducted in accordance with the Final Inspection Road Test Check Sheet and Final Inspection Check Sheet provided by Appendix C in DMM 2350-50/2B. These sheets shall be available for review during the final acceptance testing.

3.3.3.2 Testing. The contractor shall be responsible for conducting all required tests. The contractor shall ascertain that all necessary personnel are available, the Final Inspection Check Sheets and the Final Inspection Road Test Check Sheets are available. Chassis dynamometer procedures and test standards are outlined in TB 9-2300-245-50. A cell dynamometer test will

be performed on all LAV Silver Series Engines entered into the IROAN cycle. Cell dynamometer procedures and test standards are outlined in TM 8A192C-34&P/A.

3.3.3.3 Acceptance. The performance of the contractor, the quality of work delivered, including all equipment furnished and documentation material written or compiled, shall be subject to in-process review/inspection during performance. Inspection shall be accomplished in-plant and/or at any work site or location. The Marine Corps Logistics Bases (Code 832-1) representatives shall be permitted to observe the work and/or conduct inspections during normal working hours. MCLB (Code 832-1) personnel will provide adequate notice of the intended observation. Final inspection and acceptance shall be at the contractor facility.

3.3.3.3.1 Final Inspection and Acceptance. Vehicles IROANed under the provisions of this SOW shall be acceptance tested in accordance with TB 9-2300-388-50. The Final Inspection Road Test Check Sheets and the Final Inspection Check Sheets will be utilized for the acceptance.

3.3.3.3.2 Correction of Deficiencies. Failure to comply with any of the specified requirements listed within this SOW shall be reason for rejection by the Marine Corps. Correction of deficiencies will be in accordance with NAVCOMP Volume 5, paragraph 054014, Guarantee Policy. The depot/contractor shall be responsible to correct all deficiencies discovered, at no additional cost to the Marine Corps, and enforce compliance with quality assurance procedures. Upon approval of a documented approach, the contractor shall correct the deficiencies and repeat the verification until an acceptable compliance with test requirements is demonstrated.

3.3.4 Phase IV - Packaging, Handling, Storage and Transportation (PHS&T).

3.3.4.1 The Contractor shall be responsible for preservation and packaging for items being repaired under the terms of this statement of work. Items scheduled for long-term storage shall be in accordance with level A requirements of ATPD 2241 ***and the Equipment Preservation Data Sheet (EPDS) 12314764***. Items scheduled for shipment to all other destinations with the exception of Maritime Pre-positioned Forces (MPF) shall be to level B, Drive-on/Drive-off. Items preserved to level B scheduled for overseas destinations shall have a label affixed which reads, "NOT FOR WEATHER DECK STOWAGE". Items scheduled for MPF shall be preserved to level B, MPF Modified Drive-away.

3.3.4.2 The terms "Drive-On/Drive-Off" and "MPF Modified Drive Away" are defined as follows:

3.3.4.2.1 Drive-On/Drive-Off - Batteries shall be hot and disconnected from vehicle electrical system. Terminals and leads shall be taped. Fuel tank shall be filled ¼ tank full with ***JP5/8***. The air intake system, exhaust system, brake system, drive train, and gauges shall be depreserved. Fire extinguisher brackets and seats shall be installed.

3.3.4.2.2 MPF Modified Drive Away - Batteries shall be hot and connected to vehicle electrical system. Fuel tank shall be ¾ full ***with JP5/8***. The air intake system, exhaust system, brake system, drive train, and gauges shall be depreserved. Fire extinguisher brackets and seats shall

be installed.

3.3.4.3 Marking for shipment and storage shall be in accordance with MIL-STD-129.

3.3.4.4 The Marine Corps will provide the contractor with the shipping address(es) for delivery of the repaired equipment. The contractor shall be responsible for arranging for shipment to the pre-designated site(s). The Marine Corps will be responsible for transportation costs associated with shipping the equipment to and from the contractor.

3.4 Quality Assurance Provisions.

3.4.1 The contractor shall establish, implement, document and maintain a quality system that ensures compliance to all contractual requirements. The contractor shall implement the requirements of ANSI/ISO/ASQC Q9002-1994 or an equivalent quality system model; no third party certification is required. The contractor shall develop a Quality Assurance Program Plan (QAPP) and deliver it for review and approval. (paragraph 4.1.8 ***of this SOW***) The Contractor shall also update the QAPP as required.

3.4.2 The contractor's IROAN process shall be subject to in process and final inspections and audits to assess and verify compliance with the approved QAPP. Inspections and audits shall be conducted by the Marine Corps Logistics Base (Code 832-1), PM-LAV or their authorized representatives. All work locations or inspection stations shall be subject to in process and final inspections. Customer representatives shall be permitted to observe the work/task accomplishment, and/or conduct unannounced inspections within normal contractor working hours. Acceptance Tests shall be held in-plant. Inspections by the customer of acceptance test plans and procedures, materials, and associated lists furnished hereunder does not relieve the contractor from any responsibility regarding defects or other failures to meet contract requirements disclosed prior to final acceptance that fall within contract scope.

TABLE I

Surface Preparation and Painting QA Requirements

Paragraph	Requirement
1-3g	Paint storage conditions – primer and topcoat: verify storage temperature ranges (low and high) that paint was stored at. Inspect condition of container to ensure there are no bulges that would indicate extreme temperature storage history.
1-3g	Shelf life – primer and topcoat: Inspect and verify shelf life has not expired.
2-2b (2) & b (3)	Condition of paint in cans (MIL-C-53039): Inspect for excessive skin or gelling.
2-4b (1) & 2-4d	Surface preparation – solvent cleaning: Visual check to be sure all oils & greases are removed prior to starting abrasive blasting or power tool cleaning.
2-4b (1) & 2-4e (1)	Surface preparation – paint stripping by blasting to bare metal: Visually inspect to ensure the surface cleanliness meets SSPC-SP-10 (near white metal). Can use visual standard SSPC-VIS-1. Verify surface profile after blasting is between 1.5 and 2.5 mils.

	(0.0015 to 0.0025)
2-4b (1) & 2-4e (1)	Surface preparation – surface cleanliness: Visual check just prior to priming to ensure surface is still oil/grease free, near white.
2-3h (1) & 2-5c (2)	Primer: dry film thickness (dft) for epoxy primers shall be 1.0-1.5 mils. Use of wet film thickness (wft) measurements can be made to verify proper dft. WFT measurements shall be 2.0-3.0 mils. Make measurements in as many areas on vehicle as needed to verify compliance.
2-3c	Cure time/time to topcoat primer: Record time of primer application. Primer must be at least set to touch before application of topcoat.
2-3h (6)	Primer & Topcoat Tape Adhesion Test: V-scribe adhesive tape test on primer and topcoat on two production units per lot as specified in TM 4750-15/1.
2-5e (1)	Topcoat – polyurethane (exterior): Dry film thickness (dft) should be 1.8 to 2.2 mils per coat. Total system dft range should be 2.8 to 3.7 mils.
2-5g (1)	Topcoat-epoxy MIL-PRF-22750 (interior): dft should be 1.8 to 2.2 mils for two coats.
2-3h (4)	Topcoat: overspray measure for 3-color camouflage shall be within (+/- one inch of pattern edge.
2-3h (4)	Topcoat: overspray – visual inspect, no overspray on rubber, glass, canvas, data plates, or other components not normally painted.
2-3h (5)	Topcoat: visual inspect to ensure match with camouflage pattern reference points.
1-2c	Post-job: ensure Vehicle Record Document/Equipment Record Jacket is annotated with paint system used and the date applied.

4.0 REPORTS

4.1 The contractor shall provide a copy of the following reports to Marine Corps Logistics Bases (Code 832-1). All report deliverables not mentioned in a Contract Data Requirements List shall be submitted in hard copy to Commander (Code 832-1), Marine Corps Logistics Bases, 814 Radford Blvd. Suite 20320, Albany, Georgia 31704-0320. Contractor format is acceptable for all reports not provided by the Government.

4.1.1 The Contractor's Progress, Status and Management Report shall be provided on a monthly basis as requested on DD Form 1423. This information shall indicate the progress of work and the status of the program and of the assigned tasks, reports costs, and informs of existing or potential problem areas.

4.1.2 The Priority Parts List shall be submitted to the Light Armored Vehicle Branch (Code 832-1) on an as required basis. This report shall identify items of supply that have been requisitioned and have a delivery date that will cause an imminent work stoppage. Submission of these reports shall allow ample time for the Government to assist in locating the parts as to not interrupt the IROAN process.

4.1.3 Upon completion of the IROAN, the contractor shall provide a copy of all, Engine and Transmission Dynamometer Run- In Schedule, Final Inspection Road Test Check Sheets, and Final Inspection Check Sheets for each vehicle to Light Armored Vehicle Branch (Code 832-1) or their authorized representative. Copies of these sheets shall also accompany the vehicle to the using unit.

4.1.4 Upon completion of the IROAN, the contractor shall provide a copy of the painting process QA log generated in contractor format in accordance with paragraph 3.3.2.6.1 and Table I of this SOW for each vehicle to Light Armored Vehicle Branch (Code 832-1) or their authorized representative. Copies of these sheets shall also accompany the vehicle to the using unit.

4.1.5 The contractor shall provide Cracks and Hull Repair Sheets on all welding repairs performed during the IROAN process to Light Armored Vehicle Branch (Code 832-1). These sheets shall be turned in at completion of the vehicle. Copies of these sheets may be obtained by contacting Marine Corps Logistics Base, Albany, Light Armored Vehicle Branch (Code 832-1) Comm. (***229***) ***6***39-6591, DSN 567-6591.

4.1.6 All modification information for the vehicle shall be entered on the Light Armored Vehicle Modification internet web site. The web site address to be utilized for this information is as follows: http://notes.ala.usmc.mil/lcmc/lavmodtracker.nsf.

4.1.7 Cost Schedule Status Report. An LAV-AT EVMS IPT defined and approved tailored Cost/Schedule Status Report (CSSR) shall summarize contract cost and schedule performance data in sufficient detail that management can make informed decisions based upon variances in budgeted and actual work performed, and budget at completion versus estimated at completion. The level of detail for reporting purposes is contained in Appendix B to this statement of work. MARCORLOGBASES shall agree to permit PM- LAV to inspect all pertinent records and data.

4.1.8 Quality Assurance Program Plan (QAPP). The contractor shall develop a QAPP to be delivered 120 days after contract award to Code 832-1. The government will review and provide comments within 30 days. The contractor shall provide the final QAPP 30 days after receipt of government comments. The QAPP can be produced in contractor format.

APPENDIX A

LAV MASTER WORK SCHEDULE REQUIRED DELIVERY DATES'S (RDD's)
LIGHT ARMORED VEHICLES (MAINTENANCE CENTER, BARSTOW)

LAV-ANTI TANK (E0942)

LAV□	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	TOT
AT IND				1			1			1			3
PROD									1			1	2

LAV MASTER WORK SCHEDULE RDD'S
LIGHT ARMORED VEHICLES (MAINTENANCE CENTER, ALBANY)

LAV□	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	TOT
AT IND				1			1			1			3
PROD									1			1	2

NOTE: 1 production asset carried over to December for both Maintenance Centers.

FY-02 MWS line 2754

RCT: MBB&MAB = 150 days

LAV-AntiTank Work Breakdown Structure

Level 1	Level 2	Level 3
1. LAV		
	1.01 Light Armored Vehicle-AT	
		1.01.01 Hull/Frame
		1.01.02 Suspension/Steering
		1.01.03 Power Package/Drive Train
		1.01.04 Auxiliary Automotive
		1.01.05 Turret
		1.01.06 Navigation/Communication (DMM Chap.13)
		1.01.07 NBC System
		1.01.08 Fire Control System
		1.01.09 Armament System (DMM Chap.15)
		1.01.10 Vehicle Disassembly
		1.01.11 Vehicle Assembly
		1.01.12 Final Inspection & Road Test
	1.02 Miscellaneous Material	
		1.02.01 Paint
		1.02.02 Line Side Stock
		1.02.03 Hazardous Material
		1.02.04 Fabricated Parts
	1.03 Systems Engineering/Program Management	
		1.03.01 Industrial Engineering
		1.03.02 Production Management
		1.03.03 Configuration Management
		1.03.04 Program Management
	1.04 Vendor Processing	
	1.05 Facilities	
		1.05.01 Test Stands
		1.05.02 Tools
	1.06 Spares	
	1.07 GFM Repair	

APPENDIX C

MODIFICATION INSTRUCTIONS

MI NUMBER	DESCRIPTION	DATE
MI-08652A-23/2	POWER CONDITIONER CABLE	97353
MI-08652A-23/2	CHANGE 01	98243
MI-2320-35/72A	SINCGARS, LAV-AT,R,L&M	93088
MI-2320-35/72A	CH001SINCGARS, LAV-AT,R,L,&M	93125
MI-2320-35/72A	CHANGE 02	95103
MI-8400-20/21	INSTL HYDRAULIC FAN HOSE IN LAV	97202
MI 8400-25/15	INSTL NEW DESIGN ENG COOLANT LAV	95018
MI-8400-35/11A	AUXILIARY HEATER LAV SERIES	95208
MI-8400-35/22	STAN MOD F/CRSN PREV IN LAV/MEWSS	99090
MI-8400-20/23A	INSTL HYDR OIL FLTR KT LAV FAMILY	00031
MI-8400-25/18	INSTL OF QUICK DISCONNECTS	00090
MI-8400-25/26	***REMOVAL OF AIR COUPLING***	***00090***
MI-8400-35/25	INSTL OF PERM SUMP SCREEN FILTER	00031
MI-8400-45/24	INSTL ALT UPGRADE	00030
TI-8400-25/12	RETROFIT DESIGN CHANGES	95355

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

Form Approved
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY: TDP ____ TM ____ OTHER ____ X

D. SYSTEM/ITEM	E. CONTRACT/PR NO.	F. CONTRACTOR
Light Armored Vehicle (AT)		

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE
A001	Contractor's Progress, Status, and Management Report	Monthly Progress Report

4. AUTHORITY (Data Acquisition Document No.)	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
DI-MGMT-80227	SOW 4.1.1	MCLBA (832)

7. DD 250 REQ	9. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION
LT		MTHLY	See Blk 16

8. APP CODE	11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION
A		See Blk 16

17. PRICE GROUP

18. ESTIMATED TOTAL PRICE

14. DISTRIBUTION

a. ADDRESSEE	b. COPIES Draft	Final Reg	Final Repro
MCLBA (832-1)	0	1	0
AMSTA LC AL-M	0	1	0
15. TOTAL →	0	2	0

16. REMARKS

Contractor format is authorized.

Blk 4 - Tailor DI-MGMT-80227 as follows: Delete paragraphs 10.3g, 10.3h, 10.3i, 10.3j.

Blk 12 - The reporting period shall be from the first to last business day of each month. Initial submission shall be 60 DAC.

Blk 13 - Subsequent submissions shall be 10 days after the last business day of each month.

Distribution Statement A: Approved for public release, distribution is unlimited.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Marcia Jewell	11/20/00	[signature]	29 Nov 00

DD FORM 1423-1, AUG 96 (EG) PREVIOUS EDITION MAY BE USED. Page ___ of ___ Pages

Designed using Perform Pro, WHS/DIOR, Aug 96

ENCLOSURE (2

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

Form Approved
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY: TDP ___ TM ___ OTHER ___ X

D. SYSTEM/ITEM	E. CONTRACT/PR NO.	F. CONTRACTOR
Light Armored Vehicle (AT)		

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE
A002	Cost/Schedule Status Report (C/SSR)	Management

4. AUTHORITY (Data Acquisition Document No.)	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
DI-MGMT-81467	SOW 4.1.7	AMSTA-LC-AL-M

7. DD 250 REQ	9. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION
DD	A	ASREQ	60 DAC

8. APP CODE	11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION
		See Blk 16

17. PRICE GROUP

18. ESTIMATED TOTAL PRICE

14. DISTRIBUTION

a. ADDRESSEE	b. COPIES Draft	Final Reg	Final Repro
AMSTA-LC-AL-M	0	1	0
MCLBA (832-1)	0	0	1
15. TOTAL →	0	1	1

16. REMARKS

Blk 4 - Contractor format is authorized.

Blk 12 - 60 days after close of the accounting period during which contract start is authorized.

Block 13 - 25 days after close of accounting period.

Block 14 - C/SSR shall be submitted electronically in ANSI-ASC X12 format compatible with PM-LAVs Earned Value Managmenet (EVM) tracking hardware. On line access by PM-LAV of the C/SSR/EVM data is preferred over electronic submission, so that PM-LAV can monitor the data and print out the reports. C/SSR requirements should be tailored to the maximum extent possible to accomodate the contractor EVM system, and to reflect the minimum essential data needed by PM-LAV to manage the program. PM-LAV and the contractor shall agree on the extent of tailoring the C/SSR at the Integrated Baseline Review (IBR).

Distribution Statement A: Approved for public release, distribution is unlimited.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Marcia Jewell	11/20/00	[signature]	29 Nov 00

DD FORM 1423-1, AUG 96 (EG) PREVIOUS EDITION MAY BE USED. Page ___ of ___ Pages

Designed using Perform Pro, WHS/DIOR, Aug 96

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

Form Approved
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY: TDP ____ TM ____ OTHER X

D. SYSTEM/ITEM	E. CONTRACT/PR NO.	F. CONTRACTOR
Light Armored Vehicle (AT)		

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE
A003	Report of Shipping and Packaging Discrepancy	Management

4. AUTHORITY *(Data Acquisition Document No.)*	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
DI-MGMT-80503	SOW 3.3.1	MLCBA (832)

7. DD 250 REQ	9. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION
DD	A	ASREQ	See Blk 16

8. APP CODE	11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION

17. PRICE GROUP

18. ESTIMATED TOTAL PRICE

14. DISTRIBUTION

a. ADDRESSEE	b. COPIES Draft	Final Reg	Final Repro
MCLBA (832-1)	0	1	0
15. TOTAL →	0	1	0

16. REMARKS

Blks 10 & 12 - SDR/RODs shall be submitted as required. SDR/RODs will be reviewed and final determination made within 30 calendar days upon receipt by the Government.

Distribution Statement A: Approved for public release, distribution is unlimited.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Marcia Jewell	11/20/00	[signature]	29 Nov 00

DD FORM 1423-1, AUG 96 (EG) PREVIOUS EDITION MAY BE USED. Page ____ of ____ Pages

Designed using Perform Pro, WHS/DIOR, Aug 96

E (2)

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

Form Approved
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY: TDP ____ TM ____ OTHER ____ X
D. SYSTEM/ITEM: Light Armored Vehicle (AT)	E. CONTRACT/PR NO.	F. CONTRACTOR

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE
B001	Request For Deviation	Configuration Management

4. AUTHORITY (Data Acquisition Document No.)	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
DI-CMAN-80640C	SOW 3.1.3.2	MCLBA (851)

7. DD 250 REQ	9. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION
LT	A	ASREQ	See Blk 16
8. APP CODE		**11. AS OF DATE**	**13. DATE OF SUBSEQUENT SUBMISSION**
A			

17. PRICE GROUP

18. ESTIMATED TOTAL PRICE

16. REMARKS

Blk 4 - Contractor format using .doc or .pdf software applications is authorized.

Blks 10 & 12 - RFDs shall be submitted to obtain authorization to deliver nonconforming material which does not meet prescribed configuration documentation.

RFDs will be reviewed and disposition determined within 30 calendar days upon receipt by the Government.

RFDs shall be transmitted via E-Mail to the following address: mbmatcomconfigmngmnt@matcom.usmc.mil

Distribution Statement A: Approved for public release, distribution is unlimited

14. DISTRIBUTION

a. ADDRESSEE	b. COPIES Draft	Final Reg	Final Repro
MCLBA (832-1)	0	0	0
MCLBA (851-2)	0	1	0
15. TOTAL →	0	1	0

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
[signature]	6 Nov 2000	[signature]	29 Nov 00

DD FORM 1423-1, AUG 96 (EG) PREVIOUS EDITION MAY BE USED. Page ____ of ____ Pages

Designed using Perform Pro, WHS/DIOR, Aug 96