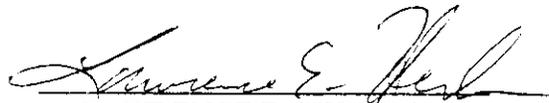


DATE: 06 Mar 01

STATEMENT OF WORK  
for the  
Rebuild  
of the  
Guided Missile Battery Control Central, Vehicle Mounted:  
AN/TWQ-1  
Avenger Weapon System  
1430-01-378-6963

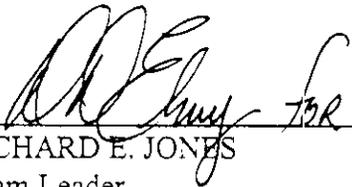
SOW-03-844-2-09871A-1/1

1. This SOW identifies the work effort that shall be performed by the contractor to rebuild the Guided Missile Battery Control Central, Vehicle Mounted: AN/TWQ-1 Avenger Weapon System, NSN 1430-01-378-6963.
2. The attached manuscript has been reviewed and is concurred upon by the following signers:



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STATEMENT OF WORK  
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of the  
Guided Missile Battery Control  
Central, Vehicle Mounted:  
AN/TWQ-1  
Avenger Weapon System  
1430-01-378-6963

1.0 Scope. This Statement of Work (SOW) establishes, sets forth tasks and identifies the work effort that shall be performed by the Contractor in the rebuild effort of the Guided Missile Battery Control Central, Vehicle Mounted: AN/TWQ-1, Avenger Weapon System; hereafter referred to as the AN/TWQ-1 Avenger Weapon System. These documents contain requirements to restore the AN/TWQ-1 Avenger Weapon System to Condition Code "A". Condition Code "A" is defined as "serviceable/issuable without qualification, new, used, repaired or reconditioned material which is serviceable and issuable to all customers without limitation or restriction, including material with more than 6 months shelf-life remaining."

1.1 Background. Rebuild is defined as "That maintenance technique which is necessary to restore an item to a standard as near as possible to original or new condition in appearance, performance, and life expectancy. This is accomplished through a maintenance technique or complete disassembly of the item, inspection of all parts or components, repairs or replacement of worn or unserviceable elements using original manufacturing tolerances and/or specifications and subsequent reassembly of the items."

2.0 Applicable Documents. The following documents form a part of this SOW to the extent specified. Unless otherwise specified, the issues of these documents are those listed in the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto which is in effect on the date of solicitation. In the event of conflict between the documents referred herein and the contents of the SOW, the content of this SOW shall be the superseding requirement.

2.1 Military Standards

MIL-STD-2073-1D	DoD Standard Practice for Military Packaging
MIL-STD-129	DoD Standard Practice for Military Marking
MIL-STD-130	DoD Standard Practice for Identification Marking of U.S. Military Property

2.2 Other Government Documents and Publications. The latest issue of those documents cited below shall be used.

MI-09871A-50/1	AN/TWQ-1 Missile Battery Control Cent.	PCN: 16009871000
MI-09871A-35/2	MOD Missile Connector AN/TWQ-1	PCN: 16009871100

SI-09871A-15/1	Avenger, AN/TWQ-1 (Warranty)	PCN: 16309871000
TI-09871A-25/1	AN/TWQ-1 Avenger	PCN: 16698710000
TI-2320-34/60	Tow Pindle FAB HMMWV M998 Series	PCN: 16723235300
TI-2320-25/65	Troop Seat Safety Strap Loop	PCN: 16723256500
TI-11240-24/33	Troubleshoot/Instl. Alternator HMMWV	PCN: 16811240500
TI-11240-35/28	Power Train Lift Sling HMMWV M998	PCN: 16811244500
TI-11240-15/35	Clean, Preserve, Care of MT Movers	PCN: 16811267000
TM 09871A-12/1	Avenger AN/TWQ-1	PCN: 18409871100
TM 09871A-24P/6	Avenger Guided Missile System	PCN: 18409871600
LO 9-1425-433-12	Avenger Guided Missile System	PCN: 30914254300
TB-1430-433-14	Warranty Program, Avenger	PCN: 31214304300
TM 9-1425-433-10	Avenger/Guided Missile Battery Control	PCN: 34914251000
TM 9-4935-433-14P	Avenger LRU TPS TS-4223/USN	PCN: 34914251100
TM 9-1425-433BD	Avenger, Battlefield Damage	PCN: 34914251200
TM 9-1427-433-34	Avenger, Line Replacement Units	PCN: 34914251300
TM 9-1440-433-24-1	Avenger, ON-EQUIP MAINT	PCN: 34914251400
TM 9-1440-433-24-2	Avenger, AN/TWQ-1	PCN: 34914251500
TM 9-1440-434-24&P	Avenger, Guided Missile Battery	PCN: 34914251700
TM 9-1450-431-14&P	Avenger, Coolant Recharge Unit	PCN: 34914251800
TM 9-4935-433-14	Avenger LRU TPS-4223/USM	PCN: 34914251900
TM 9-4935-433-24P	Avenger, Guided Missile System	PCN: 34914256000
TM 9-1440-Avenger	CD-ROM	PCN: 34914667000
EM 0047	Avenger/Stinger Missile	PCN: 38107923000
EM 0017	TM 9-1440-Avenger CD-ROM	PCN: 38108522000
TM 4750-15/2	Painting and Registration Marking for Marine Corps Combat and Tactical Equip.	
DOD 4000.25-1-M	MILSTRIP Manual	
NAVICPINST 4491.2A	Requisitioning of Contractor Furnished Materiel From the Federal Supply System	
SPI AL13786963	Special Packaging Instruction (SPI)	

#### Military Handbooks (For Guidance)

MIL-HDBK-61 Configuration Management Guidance

#### 2.3 Industry Standards

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

ANSI/ISO/ASQC Quality Systems - Model for Quality Assurance in Final  
Q9003-1994 Inspection and Test

#### Industry Standards (For Guidance)

ANSI/EIA-649 National Consensus Standard for Configuration Management

Copies of Military Specifications and Standards 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://dodssp.daps.mil>. Copies of other government publications required by contractors in connection with specific SCW requirements shall be obtained through the Contracting Officer: Commander, Attn: Contracting Officer (Code 891), Marine Corps Logistics Bases, 814 Radford Blvd., Albany, GA 31704-1128, commercial telephone number (229) 639-6761 or DSN 567-6761. Copies of engineering drawings shall be obtained from: Life Cycle Management Center, Attn: (Code 851-3), 814 Radford Blvd Suite 20320, Albany GA 31704-0320, commercial telephone number (229) 639-6410 or DSN 567-6410.

### 3.0 Requirements

3.1 General Tasks. In fulfilling the specified requirements, the Contractor shall:

a. Provide materials, labor, facilities, and services necessary to troubleshoot, test diagnose, engineer, integrate, install, repair, and calibrate as required to restore the AN/TWQ-1, Avenger Weapon System. Upon completion of rebuild, the item shall be Condition Code "A".

b. Conduct in process and final testing for witness by the user.

3.2 Detail Tasks. The following tasks describe the different phases for rebuild of the AN/TWQ-1, Avenger Weapon System.

Phase I	Pre-Introduction
Phase II	Rebuild
Phase III	Inspection, Testing and Acceptance
Phase IV	Packaging, Handling Storage and Transportation (PHS&T)

#### 3.2.1 Phase I - Pre-Induction

a. A pre-induction inspection analysis shall be performed for each AN/TWQ-1, Avenger Weapon System within five (5) working days of induction into the Contractor's facility. Using the Contractor facilities, perform diagnosis, inspection and testing techniques to determine the extent of work and parts required. A Limited Technical Inspection (LTI) shall be performed to determine the present condition of the item and feasibility of repair. Note on the LTI if any modifications are required to bring this item up to the current configuration. Report DA-2404 (Appendix A) and Standard Form 364 (Appendix B) shall be utilized to report all anomalies and shall be provided to the government in accordance with Section 4.0 of this SOW.

b. The Contractor shall identify and request disposition instructions from MCLB Albany for all residue Secondary Repairable (SDRs) removed during rebuild. Residue Stores Account Code (SAC) 1 assets/parts shall be disposed of in the best interest of the government.

3.2.2 Phase II – Rebuild. Rebuild shall be accomplished in accordance with this SOW. Deficiencies noted in the pre-inspection shall be repaired or replaced. Components or assemblies shall not be disassembled for replacement of parts unless that part has failed, or the component assembly wherein the part is located is disassembled for repair.

a. Data Plate. Each repaired AN/TWQ-1, Avenger Weapon System shall have a rebuild data plate affixed in the location given in TM 9-1440-433-24P, figure 1, item 7 and 8. The data plate shall meet the requirements of MIL-STD-130 and TM 4750-15/2.

b. Hardware

(1) Replace broken, unserviceable and/or missing hardware including nuts, bolts, screws, washers, turnlock fasteners, mandatory replacement items, safety, and one-time use items, etc., in accordance with this SOW. Unserviceable items would include any of the above that failed to function properly.

(2) Ensure proper hardware locking devices are present on all moving mechanical assemblies.

(3) Hardware normally supplied with commercial parts shall be used unless specifically prohibited.

c. Publications and Documentation. The Contractor shall utilize the following technical documentation, i.e., TMs, MIs, etc., to restore the AN/TWQ-1, Avenger Weapon System to Condition Code “A”.

MI-09871A-50/1	AN/TWQ-1 Missile Battery Control Cent.	PCN: 16009871000
MI-09871A-35/2	MOD Missile Connector AN/TWQ-1	PCN: 16009871100
SI-09871A-15/1	Avenger, AN/TWQ-1 (Warranty)	PCN: 16309871000
TI-09871A-25/1	AN/TWQ-1 Avenger	PCN: 16698710000
TI-2320-34/60	Tow Pindle FAB HMMWV M998 Series	PCN: 16723235300
TI-2320-25/65	Troop Seat Safety Strap Loop	PCN: 16723256500
TI-11240-24/33	Troubleshoot/Instl. Alternator HMMWV	PCN: 16811240500
TI-11240-35/28	Power Train Lift Sling HMMWV M998	PCN: 16811244500
TI-11240-15/35	Clean, Preserve, Care of MT Movers	PCN: 16811267000
TM 09871A-12/1	Avenger AN/TWQ-1	PCN: 18409871100
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TM 9-1440-434-24&P	Avenger, Guided Missile Battery	PCN: 34914251700
TM 9-1450-431-14&P	Avenger, Coolant Recharge Unit	PCN: 34914251800
TM 9-4935-433-14	Avenger LRU TPS-4223/USM	PCN: 34914251900
TM 9-4935-433-24P	Avenger, Guided Missile System	PCN: 34914256000
TM 9-1440-Avenger	CD-ROM	PCN: 34914667000
EM 0047	Avenger/Stinger Missile	PCN: 38107923000
EM 0017	TM 9-1440-Avenger CD-ROM	PCN: 38108522000
TM 4750-15/2	Painting and Registration Marking for Marine Corps Combat and Tactical Equip.	

### 3.2.3 Phase III - Inspection, Testing and Acceptance

a. Inspection, testing, and acceptance of the AN/TWQ-1, Avenger Weapon System shall be conducted in accordance with TM 9-1425-433-10. Records of tests shall be maintained and be available to the Marine Corps representative.

b. The Contractor shall be responsible for conducting all required tests and shall ensure all necessary personnel are notified prior to completing the final acceptance. Acceptance tests shall be held at the Contractor's facility. MCLB Code (844-2), Albany, Georgia, representatives shall be given a minimum of two weeks notice prior to commencement of acceptance testing.

c. The Contractor shall be responsible for correcting any deficiencies identified during inspection/testing. A Marine Corps representative may require the Contractor to repeat tests, or portions thereof, if the original tests fail to demonstrate compliance with this SOW.

### 3.2.4 Phase IV - Packaging, Handling, Storage, and Transportation (PHS&T)

a. The Contractor shall be responsible for packaging and preservation of the items being repaired under the terms of this statement of work. Items scheduled for long-term storage or shipment to overseas destinations shall be in accordance with the level "A" requirements of Special Packaging Instruction (SPI) AL13786963. Items scheduled for domestic shipment, immediate use, or short-term storage shall be to level "B" requirements. Copies of the SPI may be obtained from Materiel Management Division, Attn: Logistics Support Section (822-1), Suite 20320, 814 Radford Boulevard, Albany, GA 31704-0320, Commercial telephone (229) 639-6786 or DSN 567-6786.

b. Marking for shipment of all items shall be in accordance with MIL-STD-129.

c. 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 subject equipment to and from the Contractor.

3.3 Configuration Control. The contractor shall apply configuration control to established configuration items. The contractor shall not implement configuration changes to an item's documented performance or design characteristics without prior written authorization. All permanent changes to the form, fit, or function of the baseline shall be by Engineering Change Proposal. MIL-HDBK-61 and ANSI/EIA-649 provide guidance for preparing this configuration control document. If it is necessary to temporarily depart from the authorized configuration baseline, the contractor shall prepare and submit a Request for Deviation. MIL-HDBK-61 and ANSI/EIA-649 provide guidance for preparing this configuration control document.

### 3.3.1 Configuration Status Accounting (CSA)

a. The Contractor shall record and submit data on retrofit accomplished during Phase II. The following approved Modification Instructions (MIs) shall be applied during Phase II of the rebuild process:

MI-09871A-50/1	AN/TWQ-1 Battery Control Central
MI-09871A-35/2	MOD Missile Connector AN/TWQ-1

3.4 Government Furnished Equipment (GFE)/Government Furnished Materiel (GFM). The Management Control Activity (MCA/Code 827-2) will coordinate Government Furnished Equipment/Government Furnished Materiel (GFE/GFM) requests and maintain a central control system on all government owned assets in the Contractor's possession. The MCA will forward a GFE/GFM Accountability Agreement to the Contractor for signature to establish a chain of custody and identify property responsibilities for Marine Corps Assets. The Contractor shall report receipt of all GFE/GFM, and report consumption of GFM to the MCA. The MCA, in conjunction with the LMS, reserve the right to deny any requests for GFE/GFM. Under no circumstances shall such denial form a basis for either work stoppages or delays in delivery.

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

3.6 Electrostatic Discharge (ESD) Control Program. The Contractor shall establish, implement, and document an ESD control program following the guidelines provided in JESD625-A. ESD protective measures shall be used during manufacturing, handling, inspection, test, marking, packaging, storing and transporting ESD sensitive components.

3.7 Quality Assurance Provisions. The Contractor shall provide and maintain a Quality System that, as a minimum, adheres to the requirements of ANSI/ISO/ASQC Q9003-1994, Quality Systems - Model for Quality Assurance in Final Inspection and Test. The program shall ensure quality throughout all areas to include processing, assembly, inspection, test, maintenance, and preparation for delivery and shipping. Unless otherwise specified in the contract, the Contractor shall be responsible for performance of all inspection requirements. The

Government reserves the right to perform any of the inspections set forth in the contract where such inspections are deemed necessary to assure products and services conform to the prescribed requirements.

3.8 Acceptance. The performance of the Contractor and the quality of work delivered, including all equipment furnished and documentation material written or compiled, shall be subject to in-process review and inspection during performance. Inspection may be accomplished in-plant or at any work site or location, and the user shall be permitted to observe the work or to conduct inspections at all reasonable hours. Final inspection and acceptance testing shall be conducted at the Contractor's facility. Final acceptance shall be conducted on 100% of items to verify that the units meet all requirements.

3.9 Rejection. Failure to comply with any of the specified requirements listed herein shall be reason for rejection by the Marine Corps representative. The Contractor shall, at no additional cost to MCLB, Albany, Georgia, correct the deficiencies and repeat the verification until an acceptable compliance with acceptance test procedures is demonstrated.

4.0 Reports. Report DA-2404 (Appendix A) and Standard Form 364 (Appendix B) shall be utilized to report all anomalies during the Pre-Induction Phase I. The Contractor shall also provide Monthly Progress Reports (MPR) summarizing the progress and status of the rebuild program. The MPR shall include name and phone number for the Contractor point of contact. The MPR shall be submitted no later than the tenth of the following month.

a. MPR will reflect, by serial number (S/N), the phase of repair and condition code (CC) of all Marine Corps AN/TWQ-1, Avenger Weapon Systems held by the Contractor.

b. Assets inducted into maintenance, will be identified as CC "M".

c. Assets that have completed final inspection will be identified as CC "A".

d. Assets that have completed final testing but require additional parts or components prior to issue, will be identified as CC "G".

e. Assets awaiting induction into maintenance will be identified as CC "F".

f. The reports will be submitted via E-Mail to the Logistics Management Specialist (LMS) team at this address: [smbmatcom844-2@matcom.usmc.mil](mailto:smbmatcom844-2@matcom.usmc.mil).

5.0 Cost and Financial Administration.

a. Upon completion of negotiations, the agreed upon price will be cost reimbursable. The price for any work to be performed for the next fiscal year will be developed by the Contractor, and will be submitted to MCLB Albany (Code 844-2) in sufficient time to allow for processing of agreed upon financial documentation, prior to the beginning of the fiscal year.

b. The financial management representatives of the two activities shall determine the specific procedures that will be used to transfer funds under this SOW. A Project Order, Form 1175 will be used for transfer of funds between the parties to this SOW. The Contractor shall accept Marine Corps funding as cost reimbursable. Final obligation must be received no later than one (1) week before the end of the fiscal year. This agreement will go into effect as soon as funds are transferred to the Contractor.





16 FROM	17 DISTRIBUTION ADDRESSEES FOR DISTRIBUTION
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18 TO	Use window envelope to mail this document. Insert Name and address, including ZIP Code, starting one typing space below the left dot. Each address line must NOT extend beyond right dot. Address must not exceed four single space typing lines.
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19 IN ACCORDANCE WITH NOTICE OF DISCREPANCY ON FACE OF THIS FORM:

a MATERIAL <input type="checkbox"/> HAS BEEN SHIPPED <input type="checkbox"/> WILL BE SHIPPED	DOCUMENT NUMBER	b. <input type="checkbox"/> NO RECORD OF SHIPMENT. RESUBMIT REPORT TO PROPER OFFICE UNDER
c. <input type="checkbox"/> AN ADJUSTMENT IN BILLING HAS BEEN WILL BE PROCESSED AS A <input type="checkbox"/> CREDIT <input type="checkbox"/> DEBIT	d. <input type="checkbox"/> INVOICE BILL ATTACHED    e. <input type="checkbox"/> PROOF OF DELIVERY	

f.  AN ADJUSTMENT IN BILLING FOR THIS REPORTED DISCREPANCY WILL NOT BE PROCESSED FOR THE FOLLOWING REASON WHICH IS CITED IN THE INDICATED REGULATION

(1) REASON FOR NOT PROCESSING	(2) PRESCRIBING REGULATION
(a) DISCREPANCY WAS NOT REPORTED WITHIN THE TIME FRAMES ALLOWED AND OR	(a) CHAPTER 5 OF THE GSA HANDBOOK, DISCREPANCIES OR DEFICIENCIES IN GSA OR DOD SHIPMENTS, MATERIALS, OR BILLINGS (FPMR 191.26.8)
(b) DOLLAR VALUE DOES NOT MEET THE CRITERIA PRESCRIBED IN THE REGULATION OR AGREEMENT INDICATED IN 191(C)	(b) CHAPTER 2 AND OR 7 OF DOD 4000.25.7 MILITARY STANDARD BILLING SYSTEM (MILBILLS) AND OR DD 1513, U.S. DOD OFFER AND ACCEPTANCE, AS APPLICABLE

20 THE FOLLOWING DISPOSITION IS TO BE MADE OF THE REFERENCED MATERIAL

a. <input type="checkbox"/> PROCESS FOR DISPOSAL IN ACCORDANCE WITH SERVICE AGENCY DIRECTIVES	b. <input type="checkbox"/> REPRESENTATIVE WILL CALL FOR DISCUSSION CONCERNING DISPOSITION	DAYS
c. <input type="checkbox"/> RETAIN MATERIAL AT NO CHARGE	d. <input type="checkbox"/> MATERIAL WILL BE PICKED UP IN	DAYS
e. <input type="checkbox"/> SHIP MATERIAL <i>Specify below</i>		
(1) <input type="checkbox"/> GBL APPROPRIATION CHARGEABLE (2) <input type="checkbox"/> CHARGES COLLECT - VIA <input type="checkbox"/> FREIGHT <input type="checkbox"/> EXPRESS <input type="checkbox"/> PARCEL POST (3) <input type="checkbox"/> PARCEL POST LABEL ATTACHED    (4) <input type="checkbox"/> FREIGHT PREPAID		
f. <input type="checkbox"/> OTHER <i>Specify</i>		

21 <input type="checkbox"/> IF MATERIAL IS STILL REQUIRED, SUBMIT NEW REQUISITION	22 <input type="checkbox"/> REPLACEMENT WITH SATISFACTORY MATERIAL WILL BE MADE ON OR BEFORE	DATE
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23 REMARKS (*Continue on separate sheet of paper if necessary.*)

24a TYPED OR PRINTED NAME AND PHONE NUMBER OF PREPARING OFFICIAL	24b SIGNATURE	24c DATE
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