

**Statement Of Work  
For  
REBUILD OF MODULATOR SUBASSEMBLY  
P/O AN/GRC-171A(V)2  
NSN 5895-01-136-4574**

SOW-00-847-2-89407B-1/1

**Prepared by  
Life Cycle Management Center, Code 847-2  
Marine Corps Logistics Bases, Albany, GA.**

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STATEMENT OF WORK FOR THE  
MODULATOR SUBASSEMBLY  
[P/O AN/GRC-171A(V)2]  
NSN 5895-01-136-4574

1.0 Scope. This Statement of Work (SOW) establishes and sets forth tasks and identifies the work efforts that shall be performed by the Contractor (for purposes of this SOW, Contractor is defined as the commercial or government entity performing the rebuild) in the rebuild effort of the Modulator Subassembly. These documents contain requirements to restore the Modulator Subassembly to Condition Code "A." Condition Code A is defined as "serviceable/issuable without qualification, new, used, repaired or reconditioned materiel which is serviceable and issuable to all customers without limitation or restriction, including materiel with more than 6 months shelf-life remaining."

1.1 Background. Rebuild is defined as "That maintenance technique 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 referenced herein and the contents of the SOW, the contents of this SOW shall be the superseding requirement.

2.1 Military Standards

|                 |  |
|-----------------|--|
| MIL-STD-129     | DoD Standard Practice for Military Marking   |
| MIL-STD-2073-1C | DoD Standard Practice for Military Packaging |

Military Standards (For Reference Only)

|             |                          |
|-------------|--------------------------|
| MIL-STD-973 | Configuration Management |
|-------------|--------------------------|

2.2 Industry Standards

|              |  |
|--------------|--|
| ANSI/EIA 625 | Requirements for Handling Electrostatic-Discharge Sensitive ESDS Devices |
|--------------|--|

|                          |                 |
|--------------------------|-----------------|
| ANSI/ISO/ASQC Q9003-1994 | Quality Systems |
|--------------------------|-----------------|

2.3 Other Government Documents and Publications. The issues of those documents cited below shall be used.

| <u>Short Title</u> | <u>Long Title</u>   | <u>PCN</u>  |
|--------------------|---|-------------|
| TM-08446A-50/2 M/S | Radio Set, AN/GRC-171A(V)2  | 18407981200 |
| TM-08446A-50/2 M/S | ERRATA  | 18407981290 |
| DOD 4000.25-1-M    | MILSTRIP Manual   |             |
| NAVICPINST 4491.2A | Requisitioning of Contractor Furnished Material From The Federal Supply System  |             |
| TI-5820-25/22      | Electromagnetic Environmental Effects (E <sup>3</sup> ) Procedures For Installation of Communication Equipment on U.S. Marine Corps Platforms | 16804780100 |

(Copies of military specifications and standards are available from the Naval Publications and Forms Center, (ATTN: NPODS), 5801 Tabor Avenue, Philadelphia, PA 19120-5099. Copies of other government documents and publications required by contractors in connection with specific SOW requirements shall be obtained through the contracting officer: Commander, Marine Corps Logistics Bases, (Code 891) Attn: Contracting Officer, 814 Radford Blvd., Albany, Georgia 31704-1128, commercial telephone number (912) 439-6773 or DSN 567-6773. Copies of engineering drawings, if applicable, shall be obtained from Life Cycle Management Center, Attn: Code 825-3, 814 Radford Blvd. STE 20320, Albany, Georgia 31704-0320, commercial telephone number (912) 439-6410 or DSN 567-6410.

### 3.0 Requirements.

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

a. Provide materials, labor, equipment, facilities and missing/repair parts, necessary to inspect, diagnose, restore, and test and calibrate the Modulator Subassembly. Upon completion of rebuild, the subject item shall be Condition Code "A."

b. Conduct in-process and final on-site testing for witness by a Marine Corps authorized representative.

3.2 Detail Tasks. The following tasks describe the different phases for rebuild of the Modulator Subassembly.

3.2.1 Phase I Pre-induction. A pre-induction inspection analysis shall be performed for each Modulator Subassembly using the Contractor Facility's diagnosis, inspection and testing

techniques to determine extent of work and parts required. These findings shall be annotated on the Pre-Induction Checklist (Appendix A).

3.2.2 Phase II Rebuild. After pre-induction tests and inspections have been completed, repair of the Modulator Subassembly shall be accomplished in accordance with this SOW. Deficiencies noted on the Pre-Induction Checklist (Appendix A) during Phase I shall be repaired/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. Hardware.

(1) Replace broken, unserviceable and/or missing hardware including nuts, bolts, screws, washers, turn lock fasteners, mandatory replacement items, safety, and one-time use items, etc., in accordance with the rebuild standard. Unserviceable 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.

3.2.3 Phase III - Inspection, Testing and Acceptance.

a. Inspection, Testing and Acceptance of the Modulator Subassembly shall be conducted in accordance with this Statement of Work, TM-08446A-50/2 and ERRATA.

b. The Contractor shall be responsible for conducting required tests and shall ensure all necessary personnel are notified prior to completion of the final acceptance. Acceptance tests shall be held at the Contractor's facility. MCLB, Code 847-2, 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. MCLB, Code 847-2, Albany, Georgia representatives may require the Contractor to repeat tests or portions thereof, if the original tests fail to demonstrate compliance with this SOW.

d. Acceptance testing on all Modulator Subassemblies repaired under the provisions of this SOW shall be accomplished in accordance with TM-08446A-50/2 and ERRATA.

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

a. The Contractor shall be responsible for preservation and packaging of items being rebuilt under the terms of this SOW. Items being prepared for long term storage or shipment to overseas destinations shall be level "A" in accordance with MIL-STD-2073-1C, Table A.VI., Electronic Equipment. Items being prepared for domestic shipment and/or immediate use shall be Level "B."

b. Marking 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 rebuilt 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 Management.

3.3.1 Configuration Control. The contractor shall implement configuration control to established configuration items. The baseline configuration has been established in the Technical Data Package and applicable MIs and ECPs. Deviation from the established baseline configuration will not be allowed without the approval in writing from the Weapon System/Equipment Manager (Code 847-2). If necessary to temporarily depart from the authorized configuration, the contractor shall prepare and submit a Request for Deviation/Request for Waiver. MIL-STD-973, paragraph 5.4.3 or 5.4.4 and Appendix E may be used as a guide.

3.4 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/G316-2), Marine Corps Logistics Bases, Albany, Georgia, will coordinate required GFE 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.

3.5 Contractor Furnished Materiel. The Marine Corps has adopted the Navy's procedures regarding Contractor Furnished Materiel (NAVICPINST 4491.2A). In the event that Contractor Furnished Materiel is required for repair parts, the Contractor shall requisition through the DoD Supply System. DoD 4000.25-1-M, (MILSTRIP) 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 EIA-625. ESD protective measures shall be used during manufacturing, handling, inspection, test, marking, packaging, storing and transporting ESD sensitive components.

3.7 Electromagnetic Environmental Effects (E<sup>3</sup>) Procedures. The Contractor shall plan for and use proper (E<sup>3</sup>) control procedures in the rebuild process and shall utilize TI-5820-25/22 in conjunction with the detailed requirements specified in this document.

3.8 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 System Model for Quality Assurance in Final Inspection and Test. The Contractor shall prepare and submit a Quality System Plan (QSP). Contractor format is authorized for the QSP which is to be submitted concurrent with the Bid Proposal. One copy is to be submitted to MCLB (Code 847-2). The Government has the option to waive the QSP requirements. If the contractor is ANSI/ISO/ASQC Q9003-1994 certified or has an acceptable plan which has been previously approved, the name of the Approving/Certifying Activity and Date of the Approval shall be submitted to the Government. In the event the Government exercised the option to waive the QSP, the previously approved QSP will apply to this contract.

3.9 Acceptance. The performance of the Contractor and the quality of work delivered, including all equipment furnished and documentation 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 Marine Corps representatives shall be permitted to observe the work or to conduct an inspection. Final inspection and acceptance testing shall be conducted at the Contractor's Facility. Final acceptance shall be conducted on 100 percent of items to verify that the units meet all requirements.

3.10 Rejection. Failure to comply with any of the specified requirements listed herein shall be reason for rejection by MCLB, Code 847-2, Albany, 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.

**Pre-Induction Checklist  
Modulator Assembly  
P/O AN/GRC-171A(V)2**

1. Inspect for dirt, dust, sand, etc.
2. Inspect for rust and/or corrosion damage.
3. Inspect for any physical damage to unit, cuts, dents, cracks, or broken pins.
4. Ensure that all screws, washers, nuts, bolts, etc. are attached.
5. Inspect for dry rot.

S - Serviceable

U - Unserviceable

M - Missing

| <u>Modulator Assembly (Inside PA) Inventory/Serviceability check:</u> | <u>Condition</u> | <u>Remarks</u> |
|---|------------------|----------------|
| 1. Connector, P1, 25 pin, w/ RF insert                                | _____            | _____          |
| 2. Connector, P2, Xmit RF Out   | _____            | _____          |
| 3. Chassis  | _____            | _____          |
| 4. Finned Heat-sinks, p/o chassis                                     | _____            | _____          |



**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.

|                                  |                   |   |
|----------------------------------|-------------------|---|
| <b>A. CONTRACT LINE ITEM NO.</b> | <b>B. EXHIBIT</b> | <b>C. CATEGORY:</b><br>TDP _____ TM _____ OTHER <input checked="" type="checkbox"/> |
|----------------------------------|-------------------|---|

|  |                           |                      |
|--|---------------------------|----------------------|
| <b>D. SYSTEM/ITEM</b><br>Modulator Subassembly | <b>E. CONTRACT/PR NO.</b> | <b>F. CONTRACTOR</b> |
|--|---------------------------|----------------------|

|                                 |  |  |
|---------------------------------|--|--|
| <b>1. DATA ITEM NO.</b><br>A002 | <b>2. TITLE OF DATA ITEM</b><br>Request For Waiver | <b>3. SUBTITLE</b><br>Configuration Management |
|---------------------------------|--|--|

|   |   |   |
|---|---|---|
| <b>4. AUTHORITY (Data Acquisition Document No.)</b><br>DI-CMAN-80641B | <b>5. CONTRACT REFERENCE</b><br>SOW 3.3.1 | <b>6. REQUIRING OFFICE</b><br>MCLBA (825) |
|---|---|---|

|                            |  |  |   |                         |
|----------------------------|--|--|---|-------------------------|
| <b>7. DD 250 REQ</b><br>LT | <b>9. DIST STATEMENT REQUIRED</b><br>A | <b>10. FREQUENCY</b><br>ASREQ            | <b>12. DATE OF FIRST SUBMISSION</b><br>SEE BLK 16 | <b>14. DISTRIBUTION</b> |
| <b>8. APP CODE</b>         | <b>11. AS OF DATE</b>                  | <b>13. DATE OF SUBSEQUENT SUBMISSION</b> | <b>a. ADDRESSEE</b>                               |                         |

|   |                  |   |   |   |
|---|------------------|---|---|---|
| <b>18. REMARKS</b><br>Blk 4 - Contractor format is authorized.<br>Blks 10 & 12 - RFWs shall be submitted to obtain authorization to deliver nonconforming material which does not meet prescribed configuration documentation.<br>RFWs will be reviewed and disposition determined within 30 calendar days upon receipt by the Government.<br>RFWs shall be submitted on a 3.5" disk in ASCII format.<br>Distribution Statement A: Approved for public release, distribution is unlimited | <b>15. TOTAL</b> | 0 | 1 | 0 |
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| <b>17. PRICE GROUP</b>           |
| <b>18. ESTIMATED TOTAL PRICE</b> |

|   |                           |  |                           |
|---|---------------------------|--|---------------------------|
| <b>G. PREPARED BY</b><br>James C. Clark | <b>H. DATE</b><br>8/23/99 | <b>I. APPROVED BY</b><br>Robert A. Edwards | <b>J. DATE</b><br>8/23/99 |
|---|---------------------------|--|---------------------------|