

Statement of Work (SOW)  
for the  
Rebuild  
of the  
Synthesizer, Circuit Card Assembly  
NSN 5998-01-065-9011  
P/O AN/PRC-104  
SOW-06-PMM122-87306B-1/1

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**Marine Corps Systems Command, Code PMM122R**  
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1.0 SCOPE. This Statement of Work (SOW), along with the Rebuild Standard RS 07748A-50/4 w/chg 1, establishes, 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 Synthesizer, Circuit Card Assembly, hereafter referred to as the Synthesizer. This document contains requirements to restore the Synthesizer 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 six months shelf-life remaining".

1.1 Background. Rebuild is defined as "that maintenance technique used 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 this SOW, the contents of this SOW shall be the superseding requirement.

2.1 Military Standards

MIL-STD-129	DoD Standard Practice: Military Marking for Shipment and Storage
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MIL-STD-2073-1D(1)	DoD Standard Practice for Military Packaging
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2.2 Other Government Documents and Publications

TM-07748B-45/2 w/chg 1-6	Field Maintenance Instructions	PCN 184 075258 00
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SL-4-07748A w/chg 1-14	Repair Parts List for AN/PRC-104	PCN 124 077480 00
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SL-4-07748A w/chg 15-17	Repair Parts List for AN/PRC-104	PCN 124 077480 15-17
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RS 07748A-50/4 w/chg 1	Rebuild Standard for AN/PRC-104	PCN 170 070748 00
TI-5820-25/22	Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on US Marine Corps Platforms	PCN 168 047801 00
Engineering Drawing 755002A0320, CAGE 87990	Synthesizer Assembly, Circuit Card Assembly	
DoD 4000.25-1-M	Military Standard Requisitioning and Issue Procedures (MILSTRIP) Manual	

#### 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 Management Systems - Requirements  
Q9001-2000

#### 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, commercial telephone number (215) 697-2179 or DSN 442-2179, or on the Internet at <http://www.dodssp.daps.mil/>. Copies of other government documents and publications required by Contractors in connection with specific SOW requirements shall be obtained through the Contracting Officer: Contracts Department (Code 891), P.O. Drawer 43019, 814 Radford Blvd., Marine Corps Logistics Command, Albany, Georgia 31704-3019, commercial telephone number (229) 639-6761 or DSN 567-6761. Copies of engineering drawings, if applicable, shall be obtained from Supply Chain Management Center, Attn: Code 566-1A, 814 Radford Blvd., STE 20320, Albany, Georgia 31704-0320, commercial telephone number (229) 639-6476 or DSN 567-6476.

### 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 Synthesizer. 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 Systems Command (MCSC), PMM122R, Albany, Georgia authorized representative.

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

3.2.1 Phase I - Pre-induction. A pre-induction inspection analysis shall be performed for each Synthesizer 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) and shall be provided to Marine Corps Systems Command (MCSC), Code PMM122R, Albany, Georgia authorized representative.

3.2.2 Phase II - Rebuild. After pre-induction tests and inspections have been completed, repair of the Synthesizer shall be accomplished in accordance with this SOW and Rebuild Standard RS 07748A-50/4 w/chg 1. Deficiencies noted on the Pre-Induction Checklist 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. Incorporate all Engineering Change Proposals (ECPs) and Modification Instructions (MIs) not previously incorporated.

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 Rebuild Standard RS 07748A-50/4 w/chg 1. 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 Synthesizer shall be conducted in accordance with TM-07748B-45/2 w/chg 1-6, SL-4-07748A w/chg 1-14, SL-4-07748A w/chg 15-17, RS 07748A-50/4 w/chg 1, TI-5820-25/22, and Engineering Drawing 755002A0320, CAGE 87990. Insure that all current ECPs and MIs have been incorporated.

b. The Contractor shall be responsible for conducting required tests and shall ensure MCSC, Code PMM122R, Albany, Georgia representatives are notified prior to completion of the final acceptance. Acceptance tests shall be held at the Contractor's facility, MCSC, Code PMM122R, 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. MCSC, Code PMM122R, Albany, Georgia representatives may require the Contractor to repeat tests or portions thereof, if the original tests fail to demonstrate compliance with this SOW.

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

a. The Contractor shall be responsible for preservation and packaging of item(s) being rebuilt under the terms of this SOW. Items scheduled for long-term storage or shipment to overseas destinations shall be in accordance with the Level "A" requirements of MIL-STD-2073-1D(1), Appendix J, Table J.Ia., Specialize Preservation Code "GX" and shall be packed into a reusable fast-pack container. Items scheduled for domestic shipment for immediate use or short-term storage shall be in accordance with Level "B" requirements.

b. Marking for shipment and storage 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 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 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 and ANSI/EIA-649 provide guidance for preparing this configuration control document.

3.4 Government Furnished Equipment (GFE)/Government Furnished Materiel (GFM). The Management Control Activity (MCA) (Code 581-1B) will coordinate 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 Accountability Agreement to the Contractor for signature on an annual basis to establish a chain of custody and identify property responsibilities for Marine Corps assets. The Contractor is to acknowledge receipt of GFM to the MCA within 15 days of receipt. This can be done by mailing a copy of the DD1348 to Materiel and Distribution Management Department, Distribution Management Branch, Management Control Activity (Code 581-1B), 814 Radford Blvd., STE 20320, Albany, Georgia 31704-0320 or faxing a copy to commercial telephone number (229) 639-5498 or DSN 567-5498.

3.5 Contractor Furnished Materiel (CFM). The Contractor may requisition materiel as required in the performance of the SOW through the DoD Supply System. DoD 4000.25-1-M (MILSTRIP) Chapter 11 provides guidance to Contractors on the requisitioning process. The Contractor's decision to utilize CFM procured from the DoD Supply System shall be based upon cost effectiveness, availability of materiel and the required completion/delivery date.

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, testing, marking, packaging, storing and transporting ESD sensitive components.

3.7 Electromagnetic Environmental Effects (E3) Procedures. The Contractor shall plan for and use proper (E3) 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 Q9001-2000, Quality Management – Systems Requirements. The program shall ensure quality throughout all areas to include fabrication, processing, assembly, inspection, testing, maintenance, and preparation for delivery and shipping. Unless otherwise specified in the contract, the Contractor shall be responsible for performance of all inspection requirements. MCSC, Code PMM122R, Albany, Georgia 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.

3.9 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 MCSC, Code PMM122R, Albany, Georgia 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 MCSC, Code PMM122R, Albany, Georgia representative. The Contractor shall, at no additional cost to MCSC, Albany, Georgia, correct the deficiencies and repeat the verification until an acceptable compliance with acceptance test procedures is demonstrated.

**Pre-Induction Checklist  
Synthesizer, Circuit Card Assembly  
NSN 5998-01-065-9011**

1. Using the following criteria, inspect the items listed below.
  - a. Inspect for dirt, dust, and sand.
  - b. Inspect for rust and/or corrosion damage.
  - c. Inspect for any physical damage to different units. (cuts, dents, cracks, broken pins)
  - d. Ensure that all screws, washers, nuts, and bolts are attached.
  - e. Inspect for dry rot on all rubber and plastic components.
  - f. Ensure that all covers and caps are attached.
  - g. Ensure that all knobs, switches and breakers operate freely and properly.
  - h. Inventory for accountability.

S - Serviceable

U - Unserviceable

M - Missing

Remarks: \_\_\_\_\_  
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**CONTRACT DATA REQUIREMENTS LIST**  
(1 Data Item)

Form Approved  
DMB 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> TDP _____ TM _____ OTHER _____ <input checked="" type="checkbox"/>
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<b>D. SYSTEM/ITEM</b> Synthesizer CCA	<b>E. CONTRACT/PR NO.</b>	<b>F. CONTRACTOR</b>
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<b>1. DATA ITEM NO.</b> A001	<b>2. TITLE OF DATA ITEM</b> Request For Deviation (RFD)	<b>3. SUBTITLE</b> Configuration Management
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<b>4. AUTHORITY (Data Acquisition Document No.)</b> DI-CMAN-80640C	<b>5. CONTRACT REFERENCE</b> SOW Para 3.3	<b>6. REQUIRING OFFICE</b> MARCORLOGCOM (566)
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<b>7. DD 250 REQ</b> NO	<b>9. DIST STATEMENT REQUIRED</b> A	<b>10. FREQUENCY</b> ASREQ	<b>12. DATE OF FIRST SUBMISSION</b> SEE BLK 16	<b>14. DISTRIBUTION</b>			
<b>8. APP CODE</b> N/A		<b>11. AS OF DATE</b> N/A	<b>13. DATE OF SUBSEQUENT SUBMISSION</b> N/A	<b>a. ADDRESSEE</b>	<b>b. COPIES</b>		
					Draft	Final	
						Reg	Repro

<b>16. REMARKS</b> Blk 4 - RFDs shall be submitted electronically and contractor format is authorized. BLK 4 - RFD text files shall be created usinf MICROSOFT (.doc) or ADOBE (.pdf) formatted software products. BLK 4 - RFD accompanying figures or graphics shall be created using a MICROSOFT or ADOBE format with a minimum density of 600 dpi. 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 20 working days upon receipt by the Government. RFDs shall be transmitted via E-Mail to the following address: beckie.mcallister@usmc.mil  Distribution Statement A: Approved for public release, distribution is unlimited.	MCLCA (566-1)	0	1	0
<b>15. TOTAL</b> →		0	1	0

<b>G. PREPARED BY</b> Sue McAllister	<b>H. DATE</b> 17 Jun 04	<b>I. APPROVED BY</b> William H. Ponder	<b>J. DATE</b> 6 July 04
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<b>17. PRICE GROUP</b>
<b>18. ESTIMATED TOTAL PRICE</b>