20 June 2003

DRAFT
Maintenance Concept Remains Consistent With Prior Fiscal Year

STATEMENT OF WORK (SOW)
for the
Restoration, Overhaul, and Repair (ROR)
of the
AN/TPS-59(V)3
ANTENNA-TRANSMITTER GROUP
OE-340/TPS-59
NSN 5840-01-276-5284

SOW-07-PMM112-8C778B-1/1

1. This SOW identifies the work effort that shall be performed by the Contractor to perform Restoration, Overhaul, and Repair (ROR) of the AN/TPS-59(V)3 Antenna-Transmitter Group, OE-340/TPS-59, NSN 5840-01-276-5284, part number 7327351G3, CAGE 03538.

2. The attached manuscript has been reviewed and is concurred upon by the following persons:

HARVEY C. DEARING
Logistics Management Specialist
Battlespace Management and Air Defense Systems (BMADS)
Marine Corps Systems Command (MCSC), Albany, GA

RICHARD E. JONES
Team Leader
Equipment Specialist
Battlespace Management and Air Defense Systems (BMADS)
Marine Corps Systems Command (MCSC), Albany, GA

TABLE OF CONTENTS

Paragraph/Section		Page
1.0	Scope	1
1.1	Definitions	1
2.0	Applicable Documents	2
2.1	Military Specifications	2
2.2	Military Standards	2
2.3	Other Government Documents and Publications	2
2.4	Industry Standards	3
3.0	Requirements	4
3.1	General Requirements	4
3.2	Detailed Tasks	4
3.2.1	Pre-Induction LTI	4
3.2.2	Induction and ROR	5
3.3	Packaging, Handling, Storage, and Transportation (PHS&T)	6
3.4	Configuration Management	6
3.5	Government Furnished Equipment/Materiel (GFE)/(GFM)	7
3.6	Contractor Furnished Materiel (CFM)	7
3.7	Electrostatic Discharge (ESD) Control Program	7
3.8	Quality Assurance Provisions	7
3.9	Warranted Items	7
4.0	Reports	8

STATEMENT OF WORK (SOW)
for the
Restoration, Overhaul, and Repair (ROR)
of the
AN/TPS-59(V)3
ANTENNA-TRANSMITTER GROUP, OE-340/TPS-59
NSN 5840-01-276-5284

1.0 Scope. This SOW establishes general and specific requirements to be followed by the contractor in the Restoration, Overhaul, and Repair (ROR) of the AN/TPS-59(V)3 Antenna-Transmitter Group, OE-340/TPS-59, NSN 5840-01-276-5284, CAGE 03538, part number 7327351G3, (hereafter known as Antenna-Transmitter Group).

1.1 Definitions

Contractor: For the purposes of this SOW, Contractor is defined as a commercial or government entity.

Condition Code "A": For the purposes of this SOW, Condition Code "A" is defined as "serviceable and issuable without limitation or restriction".

Restoration: The process of upgrading an item to conform to the applicable technical specifications in order to assure compliance with specified operational capabilities, physical appearance, and configuration. It includes the repair or replacement of parts/components that have failed or are of marginal quality/reliability due to wear, deterioration, or damage as well as cosmetic reconditioning. Restoration shall include all applicable alignments/calibrations and verification that approved Engineering Change Proposals (ECPs) or modifications have been installed properly and are functional. In the event that non-approved configuration items are discovered, the equipment shall be restored to its approved configuration.

Overhaul: The process of totally reconditioning an item to conform to all current technical specifications for that item, thereby providing a life expectancy equivalent to similarly configured new equipment, through the repair/replacement of components that have failed, are of marginal performance, or are reasonably expected to fail due to wear/damage/deterioration. Additionally, structural/cosmetic repairs shall be performed to the degree that the item is comparable to new equipment. For the purposes of this SOW, all approved Engineering Change Proposals (ECPs) and modifications shall be installed/verified as part of the overhaul work effort.

Repair: The process of returning an unserviceable item to full operational status by repair/replacement of its component parts and performing any alignments/calibrations as may be necessary. Cosmetic/structural repairs are not included in the repair process unless those repairs impede the operational functionality of the item.

Marginal Quality: Deteriorated or damaged parts that are reasonably anticipated to fail thereby significantly reducing the expected reliability of an assembly/equipment. An expanded definition and associated requirements for replacement of parts/components adjudged to be of marginal quality is contained in MIL-STD-2110 (EC). Specific requirements of this SOW, along with the general requirements as contained in MIL-STD-2110 (EC), shall be used to identify and necessitate the replacement of marginal quality 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 Supplements thereto which are 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. Any remaining conflicts shall be resolved at the discretion of the Logistics Management Specialist (LMS) who can be contacted at the following e-mail address: SMBmatcombmads@matcom.usmc.mil. The mailing address is: Commander, Marine Corps Systems Command, Attn: Logistics Management Specialist, BMADS, 814 Radford Blvd., Suite 20343, Albany, GA 31704-0343. The commercial telephone number is (229) 639-6578, or DSN 567-6578. Facsimiles may be sent to commercial telephone number (229) 639-6545 or DSN 567-6545, Attn: Logistics Management Specialist, BMADS.

2.1 Military Specifications

MIL-A-8625	Anodic Coatings for Aluminum and Aluminum Alloys
MIL-C-5541	Chemical Conversion Coatings on Aluminum and Aluminum Alloys
MIL-I-631	Insulation, Electrical, Synthetic Resin Composition, Non-rigid
MIL-R-29466D	System Specifications for the AN/TPS-59(V)3

2.2 Military Standards

MIL-STD-129	DoD Standard Practice for Military Marking
MIL-STD-2073-lD	DoD Standard Practice for Military Packaging
MIL-STD-2110 (EC)	Restoration, Overhaul, and Repair of Electronic Equipment

2.3 Other Government Documents and Publications

DoD 4000.25-1-M	Military Standard Requisitioning and Issue Procedure (MILSTRIP)
Engineering Drawing	Set of Engineering Drawings for AN/TPS-59(V)3

7327351, CAGE 03538	Antenna-Transmitter Group, OE-340/TPS-59, (along with all sub-tiered drawings referenced therein).
LI-07751A-12B	AN/TPS-59 (V)1 Lubrication Instruction
RS-07751A-50	AN/TPS-59 (V)1 Rebuild Standard
SL3-07751B	Components Listing, Radar Set AN/TPS-59 (V)3
TI-4400-15/1	Packaging, Handling, Storage, and Transportation of Electrostatic Discharge Sensitive Items
TM-07751B-14/2	Operation and Maintenance Instructions, Antenna-Transmitter-Receiver Group
TM-07751B-14/3	Maintenance Prints, Antenna-Transmitter-Receiver Group
TM-4750-15/1	Painting and Registration Marking of Marine Corps Combat and Tactical Equipment

Military Handbooks (For Guidance)

MIL-HDBK-61	Configuration Management Guidance

2.4 Industry Standards

ANSI/ISO/ASQC Q9001-2000	Quality Management Systems-Requirements
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, commercial telephone number (215) 697-2179 or DSN 442-2179, or http://www.dodssp.daps.mil. MIL-R-29466D, System Specifications for the ANTPS-59(V)3, may be obtained by contacting the LMS at the following e-mail address: SMBmatcombmads@matcom.usmc.mil. The mailing address is: Commander, Marine Corps Systems Command, Attn: Logistics Management Specialist, BMADS, 814 Radford Blvd., Suite 20343, Albany, GA 31704-0343. The commercial telephone number is (229) 639-6578, or DSN 567-6578. 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 Bases, Albany, GA 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 583-1, 814 Radford Blvd., Suite 20320, Albany, GA 31704-0320, commercial telephone number (229) 639-6476 or DSN 567-6476.

3.0 Requirements

3.1 General Requirements

3.1.1 This SOW establishes uniform standards and procedures as applicable to the entire ROR process (to include, an initial evaluation of the equipment's condition, maintenance procedures, selection and use of parts/materials, identification/marking of the equipment, and preservation/packing for shipment). Although this SOW, along with the referenced documents (in particular MIL-STD-2110 (EC)) provides extensive information relative to the ROR, the information and guidance is limited to establishing only the minimum requirements essential to perform the ROR process to restore the Antenna-Transmitter Group to Condition Code "A". Additional guidance may be provided by the LMS, as well as other approved commercial/ industry practices and standards. Requests for additional guidance shall be referred to the LMS (BMADS), commercial telephone number (229) 639-5036, DSN 567-5036, FAX (229) 639-6545, or e-mail to: SMBmatcombmads@matcom.usmc.mil.

3.1.2 The Contractor shall be responsible for providing all parts, materials, labor, facilities, tools, and test equipment necessary to restore, overhaul, and/or repair the Antenna-Transmitter Group in accordance with the references and this SOW. Upon successful completion of the ROR, the Antenna-Transmitter Group shall be Condition Code "A".

3.1.3 The Contractor shall perform all actions necessary for the equipment to be transported to the receiving Marine Corps unit via air-ride truck (for CONUS shipments), or priority air shipment via Military Airlift Command in case(s) where the delivery is OCONUS, as directed by the Logistics Management Specialist (LMS).

3.1.4 The Contractor shall coordinate equipment receipt, emplacement, assembly, and joint acceptance testing with the receiving Marine Corps unit.

3.1.5 The Contractor shall budget for the required Temporary Additional Duty (TAD) funding as part of the ROR process and provide technical service personnel (actual number to be determined by the Contractor) to the receiving unit to perform joint acceptance testing. Repairs to electrostatic sensitive items and packaging of such items shall be accomplished in accordance with JESD625-A.

3.2 Detailed Tasks

3.2.1 Pre-Induction LTI. Contractor technical personnel shall perform an on-site Limited Technical Inspection (LTI) on the next Antenna-Transmitter Group scheduled for ROR

induction, utilizing SL3-07751B, TM-07751B-14/2 and TM-07751B-14/3 for inventory and determination of operational status of the equipment. The pre-induction LTI (contractor format) shall identify any equipment shortages, long lead-time material requirements, and the overall condition of the Antenna-Transmitter Group to be inducted for ROR. The LMS shall be informed of any equipment shortages in order to coordinate resolution actions. Identification of required long lead-time materials and the overall condition are envisioned to assist ROR management personnel in the reduction of overall ROR processing time.

3.2.2 Induction and ROR. Upon receipt of the Antenna-Transmitter Group at the Contractor's repair facility, a second "receipt" LTI shall be performed to identify any transportation-related damages incurred in-transit. Additionally, any differences between the receipt LTI and the pre-induction LTI shall be noted and follow-up action coordinated with the LMS, as appropriate. In the event of any transportation related damage(s), the cognizant Transportation Management Office (TMO) shall be notified, in writing, within five working days of receipt.

ROR, in accordance with this SOW and its references, shall commence within five days of receipt of the Antenna-Transmitter Group at the Contractor's facility. The following documents should be referenced for informational purposes and to ensure compliance with established mandatory work requirements: Engineering Drawing 7327351, CAGE 03538, LI-07751A-12B, TM-07751B-14/2, TM-07751B-14/3, TM-4750-15/1, RS-07751A-50, MIL-R-29466D, and JESD625-A. In addition to other requirements contained elsewhere in this SOW and references cited herein, the following "mandatory tasks" shall be accomplished, language and requirements as contained in the references not withstanding:

3.2.2.1 Trailers

a. 100 % replacement of all bearings/bearing assemblies, seals, master/wheel brake cylinders, and air/hydraulic converters.

b. Check/replace brake pads, turn/replace brake drums, check/replace all interlock micro-switches, trailer splice bolts/nuts, and electrical cable connectors.

c. Ensure that no paint or other foreign material enters/blocks the air release openings on the air/hydraulic converters.

3.2.2.2 Platform

a. 100% replacement of all cables/cable assemblies between the receiver/transmitter/ Distribution Array Data (DAD) and all seals/gaskets on cover panels. Electrical connectors (on all applicable assemblies and sub-assemblies of the antenna platform and array portions of the antenna-transmitter group) shall be sealed with synthetic resin insulation compound conforming to MIL-I-631.

b. Check/replace, as necessary, the slip-ring assembly and cooling fans.

3.2.2.3 Array

a. Replace rails and drive gears for the maintenance lift, all rubber/plastic insulated cables/cable assemblies (including insulation boots), the IFF "HELIX" cable, and wing lock hardware.

b. Check/replace, as necessary, all interlock micro-switches, array splice bolts and associated splice brackets (warranted items), bolts/nuts/helicoils.

3.2.2.4 Aluminum and aluminum alloy hardware shall be treated in accordance with MIL-A-8625 or MIL-C-5441, as applicable, to provide protection from corrosion/oxidation.

3.2.2.5 Following reassembly of the Antenna-Transmitter Group, the Contractor shall conduct a final full system operational test using the Acceptance Test/LTI form(s) (Contractor format) for documentation. In addition to the system operational test, the Antenna Transmitter Array shall be tested utilizing the Space Probe Antenna Characterization System (SPACS) to ensure proper operation of all Antenna Array RF components.

3.3 Packaging, Handling, Storage and Transportation (PHS&T)

a. The Contractor shall be responsible for preservation and packaging of item(s) to be delivered under the terms of this statement of work. All items shall be level "B" packed in accordance with the requirements of MIL-STD-2073-1D, Appendix A, Table A.VI., Electronic Equipment. All shipments will be made utilizing Air Ride vehicles.

NOTE: All overseas shipments must be made via priority Airlift Management Command (AMC) and all shipments will result in immediate use. No level "A" preservation and packaging requirements exist.

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 Antenna-Transmitter Group. The contractor shall be responsible for arranging for priority shipment to the pre-designated site(s). The Marine Corps will be responsible for transportation costs associated with movement of the equipment to and from the Contractor's repair facility.

3.4 Configuration Management. The Contractor shall apply configuration control procedures to established configuration baseline 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 baseline shall be submitted by Engineering Change Proposal (ECP). If it is necessary to temporarily depart from the authorized configuration, the Contractor shall prepare and submit a Request for Deviation (RFD). MIL-HDBK-61 and ANSI/EIA-649 provide guidance for preparing these configuration control documents.

3.5 Government Furnished Equipment (GFE)/Government Furnished Materiel (GFM). The Management Control Activity (MCA/Code 571-1) 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 Management Department, Management Control Activity (Code 571-1), 814 Radford Blvd., STE 20320, Albany, GA 31704-0320, or by faxing a copy to commercial telephone number (229) 639-5498 or DSN 567-5498.

3.6 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.

3.7 Electrostatic Discharge (ESD) Control Program

3.7.1 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.

3.7.2 The contractor shall plan for and use proper Electromagnetic Environmental Effects (E3) control procedures in the ROR process in conjunction with TI-4400-15/1A and JESD625-A.

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.

3.9 Warranted Items. The following items have been warranted by Lockheed Martin Corporation for a period of 15 years from the original date of installation. In the event that defects are discovered during the ROR process, the LMS (designated as warranty administrator) shall be notified in writing, within five working days from the time the defect is discovered.

Part Number	Nomenclature
77C724594	Bracket, angle
77C724595	Backer plate
77D614885	Brace, cross arm
77D614886	Bracket, angle
77D614887	Clamp, housing bearing unit
77E300173	Support, upper left
77E300174	Support, upper right
77E300175	Support, lower left
77E300176	Support, lower right
77E300177	Support, structural
77E300178	Support, structural

77E300179	Mounting, support, ballscrew
77E300180	Mounting, support, antenna array

4.0 Reports. The Contractor shall provide the following reports as stated in the paragraphs below. Reports shall be submitted to the Logistics Management Specialist (LMS). The LMS can be reached during normal business hours at commercial telephone number (229) 639-5036, or DSN 567-5036. The electronic address is: SMBmatcombmads@matcom.usmc.mil. The mailing address is: Commander, Marine Corps Systems Command, Attn: Logistics Management Specialist, (BMADS), 814 Radford Blvd., Suite 20343, Albany, GA 31704-0343. Facsimiles may be sent to commercial telephone number (229) 639-6545, or DSN 567-6545, Attn: Logistics Management Specialist, (BMADS).

4.1 The Contractor shall develop a Test Data Report (TDR) in Contractor format that portrays all test specifications/requirements (as collectively contained in the engineering drawings and technical manuals applicable to the Antenna-Transmitter Group and its major subassemblies), referencing acceptable parameters, specific results obtained during the final diagnostic/integration testing, and general remarks. Additionally, the TDR shall reference this SOW, the NSN, part number, and serial number of the Antenna-Transmitter Group. Upon request, the Contractor shall submit a copy of the TDR electronically (preferred), via regular mail, or facsimile to the Logistics Management Specialist (LMS).

4.2 The Contractor shall provide a copy (either electronic or hard copy submittal is acceptable) of the Pre-Induction LTI to the LMS within 15 calendar days after completion of the inspection. The LTI (contractor format) shall consist of the TDR and extract of SL3-07751B (as applicable to Supply System Responsibility items of the Antenna-Transmitter Group).

4.3 The Contractor shall provide a hard copy (with the signature of the unit's Commanding Officer or his/her designated representative) of the Acceptance LTI to the LMS within 15 calendar days after completion of the inspection. The Acceptance LTI shall be similar in format to the Pre-Induction LTI, with provisions for the additional required signature. Electronic copies of the Acceptance LTI are not permitted unless specifically authorized by the LMS, (BMADS).