

Q17 – Maintenance, Repair or Overhaul Activities

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The terms “item”, “PO”, and “Buyer” used herein have the same meaning as “Work”, “Contract” and “Lockheed Martin”, respectively, as may be defined in another provision of the Purchase Order (PO) of which this Quality Clause Q17 is a part.

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1. APPLICABILITY:

This Quality Clause Q17 is applicable to Sellers performing Maintenance, Modification, Repair, and Overhaul (MMRO) activities on product owned by Buyer’s customers. The use of the term MMRO in this document is synonymous with the term “maintenance” in AS9110.

2. DEFINITIONS:

A. Air Vehicle Maintenance Operations:

An approved LM authorized repair center performing modifications, upgrades or repair activity at the aircraft level. This contracted activity may occur at Main Operating Bases or repair centers.

B. Depot Services:

A Seller doing major overhaul, heavy maintenance or a complete rebuild of air vehicle, parts, assemblies, subassemblies and end-items, including the manufacture of parts, modifications and testing.

C. Repair of Repairables:

Sellers doing maintenance, repair or overhaul of components, subcomponents and commodities. This may include Original Equipment Manufacturers (OEM) performing these activities on their equipment or other non-OEM Sellers performing the activity. Non-OEM Sellers may include but are not limited to Alternate Repair Facilities.

D. Service Providers:

A Seller of outsourced services

E. Mishap:

An unplanned occurrence or series of occurrences resulting in personal injury or illness or property damage.

3. GENERAL REQUIREMENTS:

- A. Seller shall comply with the requirements of AS9110.
- B. Seller shall perform repairs on this purchase order (PO) at Seller's facility designated in Buyer's PO. Outsourcing of work related to tear down, repair, re-assembly, and functional test of the item or detailed components is prohibited unless authorized in writing in advance by Buyer.
- C. For the F-16 Program, Seller shall only have authority to perform repairs of items for which it has a capability rating listed in the Supplier Quality Management System (SQMS) at www.lockheedmartin.com/us/aeronautics/materialmanagement.html under *Quality Requirements>Supplier Quality Management System*. Seller shall review SQMS under *Supplier Summary>Approved Processes* for Buyer approved capabilities before acceptance of this PO.
- D. Technical data shall be licensed from the Original Equipment Manufacturer (OEM) or obtained by Seller from appropriate authorized controlling organization. If the design of the article was obtained by a licensing agreement, the Seller shall provide evidence of that agreement upon request by Buyer. Seller shall maintain technical data to the latest revisions.
- E. Incoming Inspection, Teardown and Maintenance Release - Seller shall document and maintain the following for each unit repaired, overhauled and tested:
1. Completed Incoming Inspection and Condition Report
 2. Acceptance Test Procedures (ATP) approved by Buyer or in accordance with the latest revision of the Technical Order (T.O.) or OEM repair, overhaul manual or procedures.
 3. Teardown Report - If the repair, overhaul or modification results in a change in the configuration (i.e., a dash number, revision or part number change), documentation stating compatibility with the original part must accompany the teardown report. The teardown report must contain the following:
 - Part numbers
 - Serial number, if applicable
 - Part numbers removed and replaced
 - If the part was repaired or overhauled
 - Test reports, as applicable
 - Applicable software version/revision

- T.O., repair or overhaul manual number used to repair the item, including the revision level.
 - Photographs if damage is noted. The supplier assumes all liability for damages identified after teardown, test and evaluation without photographic evidence that the damages were preexisting, with the exception for damages to items such as O-rings, gaskets, seals, crush washers, etc.
- F. Seller shall maintain records of all repairs. Upon request, Seller shall provide a summary of all repairs, including cause of initial issue, responsibility for initial issue, repairs accomplished, corrective actions as necessary, etc., upon request by Buyer.
- G. Seller induced damages shall be immediately reported to Buyer's Supplier Quality Management (SQM), in writing. All work of affected assets shall be suspended until Buyer approval to continue with the repair is provided in writing.
- H. Seller shall use the latest revision of the T.O. or OEM repair/overhaul manual for all repairs or overhauls as applicable for that configuration.
- I. Any substitution of parts not specified in the T.O. or OEM repair/overhaul manual shall be approved by Buyer in writing prior to use.
- J. Seller shall maintain configuration management of the product, processes and component software required to effectively execute the work.
- K. For F-35 serialized product only, Seller shall contact Buyer's LM Data Quality Information Management (DQIM) group to confirm whether the product is an Electronic Equipment Logbook (EEL) designated component. If EEL applicable, Seller shall contact DQIM to identify what tasks were performed for updating EEL record. The EEL must be updated by DQIM and returned to Seller prior to Seller's product final acceptance for validation of 'Availability' and shipment. Reference Supplier Data Requirement (SDR) for EEL attached to PO.
- L. Seller cannibalization or reutilization of government or customer owned assets (components, subcomponents, etc.) is strictly prohibited without prior written authorization from Buyer.

4. AIR VEHICLE MAINTENANCE OPERATIONS AND DEPOT SERVICES:

- A. Maintenance Process Verification (MPV):
1. Seller shall perform an MPV to verify new processes, including personnel, documentation and tooling, are capable of performing the maintenance in compliance with established requirements. MRO activity must meet the following requirements:
 - a. Conformance to all military technical data, OEM repair and overhaul data and customer requirements
 - b. Conformance to all approved test requirements and procedures
 2. Seller shall perform a MPV on the first repair or overhaul. Seller need not repeat the MPV for follow-on POs as long as records of the original MPV are available.
 3. Seller shall have the ability to evaluate, verify, and document corrections, changes, and quality conformity steps to any first application of a capability, such as, but not limited to, Time Compliance Technical Data (TCTD) verification, trial kit installations or kit proofing. This verification will include documentation, personnel qualification, procedures and tools/tooling requirements.
 4. New MMRO processes shall be documented, qualified and approved by Buyer and statutory or regulatory authorities, as applicable. The MPV shall be repeated by Seller when changes occur that invalidate the original results. A

- partial MPV is required for any amended work scope after the original MPV has been conducted.
5. Any lower-level detail parts which comprise the top level item will also comply with the MPV requirements. Seller shall perform a MPV on the first repair or overhaul of a component.
 6. Buyer reserves the right to require Seller to perform a complete or partial MPV for cause.
 7. Seller shall document the MPV in the English language.
- B. Seller shall establish an Employee and Product Safety program that meets all statutory and regulatory requirements (reference the applicable AS standards for safety objectives). Seller shall identify methods for ensuring effectiveness and continual improvement of safety. Seller shall provide notification to Buyer within one (1) calendar day of any mishap during the contracted period of performance.
 - C. Seller shall have a process for training employees before they perform modification, maintenance, repair or overhaul tasks. Seller shall maintain documented training records showing employee certifications, qualifications or special tasks required to perform safely and effectively within the scope of work contracted by Buyer. Seller shall maintain relevant certifications or qualifications throughout the contracted period of performance.
 - D. When Defense Federal Acquisition Regulation Supplement (DFARS) 252.228-7001, *Ground and Flight Risk Clause* (GFRC) is imposed on this PO, Seller shall comply with Defense Contract Management Agency Instruction (DCMAI) 8210.1.
 - E. Seller shall provide Buyer the following key performance measurements on a monthly basis: (1) Escapes to Inspection; (2) Escapes to Customer; (3) Internal Corrective Action Requests; (4) User Reported Defects; and (5) Process Audits. Details of the key performance measures shall be made available upon request. The details shall include such things as part number, program (i.e., F-35, F-16, C-130, etc.), defect description, etc.
 - F. As applicable, Seller shall prepare and sign a Certificate of Conformance (CoC), Certificate of Incorporation (CoI) or a Letter of Completion (LoC) as each product is completed. Seller shall report any variance that affects the conformity of the product to Buyer prior to execution of a CoC, CoI or LoC.

5. REPAIR OF REPAIRABLES:

- A. Repair of Repairables by OEMs:
 1. When repair activity is not performed at the same facility where the original item was manufactured, Seller shall perform a Maintenance Process Verification (MPV):
 - a. Seller shall perform an MPV to verify new processes, including personnel, documentation and tooling, are capable of performing the maintenance in compliance with established requirements. MRO activity must meet the following requirements:
 1. Conformance to all military technical data, OEM repair and overhaul data and customer requirements
 2. Conformance to all approved test requirements and procedures
 - b. Seller shall perform a MPV on the first repair or overhaul of a component. Seller need not repeat the MPV for follow-on POs as long as records of the original MPV are available.
 - c. Seller shall have the ability to evaluate, verify, and document corrections, changes, and quality conformity steps to any first application of a capability, such

- as, but not limited to, Time Compliance Technical Data (TCTD) verification; trial kit installations or kit proofing. This verification will include documentation, personnel qualification, procedures and tools/tooling requirements.
- d. New maintenance processes shall be documented, qualified and approved by Buyer and statutory or regulatory authorities, as applicable. The MPV shall be repeated by Seller when changes occur that invalidate the original results. A partial MPV is required for any amended work scope after the original MPV has been conducted.
 - e. Any lower-level detail parts which comprise the top level item will also comply with the MPV requirements.
 - f. Buyer reserves the right to require Seller to perform a complete or partial MPV for cause.
 - g. Seller shall document the MPV in the English language
2. Seller shall provide Buyer the following key performance measurements on a monthly basis: (1) escapes to inspection; (2) escapes to customer; (3) internal Corrective Action Requests; (4) user reported defects; and (5) Process Audits. Details of the key performance measures shall be made available upon request. The details shall include such things as part number, program (i.e., F-35, F-16, C-130, etc.), defect description, etc.

B. Repair of Repairables by Non-OEMs:

1. Maintenance Process Verification (MPV):
 - a. Seller shall perform an MPV to verify new processes, including personnel, documentation and tooling, are capable of performing the maintenance in compliance with established requirements. MRO activity must meet the following requirements:
 1. Conformance to all military technical data, OEM repair and overhaul data and customer requirements
 2. Conformance to all approved test requirements and procedures
 - b. Seller shall perform a MPV on the first repair or overhaul of a component. Seller need not repeat the MPV for follow-on POs as long as records of the original MPV are available.
 - c. Seller shall have the ability to evaluate, verify, and document corrections, changes, and quality conformity steps to any first application of a capability, such as, but not limited to, Time Compliance Technical Data (TCTD) verification; trial kit installations or kit proofing. This verification will include documentation, personnel qualification, procedures and tools/tooling requirements.
 - d. New maintenance processes shall be documented, qualified and approved by Buyer and statutory or regulatory authorities, as applicable. The MPV shall be repeated by Seller when changes occur that invalidate the original results. A partial MPV is required for any amended work scope after the original MPV has been conducted.
 - e. Any lower-level detail parts which comprise the top level item will also comply with the MPV requirements. Seller shall perform a MPV on the first repair or overhaul of a component.
 - f. Buyer reserves the right to require Seller to perform a complete or partial MPV for cause.
 - g. Seller shall document the MPV in the English language
2. Seller shall provide Buyer the following key performance measurements on a monthly basis: (1) escapes to inspection; (2) escapes to customer; (3) internal

Corrective Action Requests; (4) user reported defects; and (5) Process Audits. Details of the key performance measures shall be made available upon request. The details shall include such things as part number, program (i.e., F-35, F-16, C-130, etc.), defect description, etc.