

Q17 – Post Delivery Maintenance, Repair or Overhaul Activities Including Alternate Repair Sourcing

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The current version is always the version on the Lockheed Martin network.

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The terms “Item(s)”, “PO”, “Seller”, and “Buyer” as used herein, have the same meaning as the terms “Work”, “Contract”, “SELLER”, and “LOCKHEED MARTIN”, respectively. Questions regarding this Quality Clause Q17 or the applicability of Q17 shall be addressed to the Supply Chain Management representative who administers this PO or Buyer’s Supplier Quality Engineer located at:
<http://www.lockheedmartin.com/us/aeronautics/materialmanagement.html> > Quality Requirements > Information.

APPLICABILITY

This Quality Clause Q17 is applicable to Sellers performing Maintenance, Repair, or Overhaul (“MRO”) activities on non-OEM product and/or Original Equipment Manufacturer (“OEM”) organizations with maintenance, repair and overhaul operated “*autonomously*” from their manufacturing/production operations. This includes Aircraft Services and Component Repair facilities (e.g. back-shops remote or at customer’s location).

“***Autonomously***” means not under the authority of and not receiving latest technical data and/or engineering direction from the OEM manufacturing site. These locations without OEM manufacturing site authority would be considered alternate repair facilities. There must be objective identifiable evidence that sister companies are receiving the latest technical data and/or engineering direction from the OEM manufacturing site. At a minimum engineering designed repair solutions outside the defined technical data processes and written by the site performing the MRO activities must have concurrence from the OEM.

Note: Q17 is not applicable when Depot locations operate to Program Partnership Agreements (“PA”) and Implementation Agreements (“IA”). The PA defines the applicable Quality Management System utilized by the Depot team and the IA outlines execution criteria. The Sustainment Quality Management group then implements a Quality Plan that defines specific Quality roles, responsibilities and oversight.

DEFINITIONS

Aircraft Services: (Two Categories) Organizational and Depot Level Maintenance

Organizational level (“O-level”) maintenance occurs at the organizational unit level (e.g., by a single maintenance squadron as part of an aircraft wing). O-level maintenance is typically optimized for quick turn-around to enhance operational availability. Maintenance at this level typically consists of immediate remove and replace (“R&R”) operations that replace failed (unserviceable) Line Replaceable Units (“LRU”) with spare (serviceable) assets taken from inventory. Repair-in-Place (“RIP”) procedures are also common.

Depot level (“D-level”) maintenance typically occurs in highly specialized repair depots or at OEM facilities. These sites are typically not at operating locations, and extensive diagnostic equipment and possibly even manufacturing capabilities exist. Aircraft overhauls and modifications are typically executed at this repair level.

Component Repair: Intermediate Level Maintenance

Intermediate level (“I-level”) maintenance occurs in specialized back-shops that are typically allocated to multiple operating squadrons residing at a common operating location (e.g., an entire wing or multiple wings at an operating base). Because it is more specialized, I-level maintenance allows for more thorough and time-consuming

diagnostic testing and repair procedures, usually in support of failed items removed at the organizational level of repair. Test equipment is more common at this level of repair and is used to automate many test procedures. Spare parts maintained at this level of repair are known as bench stock. I-level maintenance deployment can vary widely and is highly dependent on desired operating conditions.

REQUIREMENTS

1.0 Outsourcing of Repair Items

Seller receiving Purchase Orders for repair Items shall perform repair at Seller's facility. Outsourcing of work related to tear down, repair, re-assembly, and functional test of the end Item or detailed components is prohibited unless authorized in advance by the Supply Chain Management representative who administers this PO.

2.0 Supplier Quality Management System ("SQMS") Alternate Repair Sources Approved Capability Ratings

Seller shall only have authority to perform repairs of Items for which it has a capability rating listed in the SQMS at <http://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 purchase orders. When Statutory/Regulatory Authority requirements are imposed on this PO, Seller shall also ensure capability approval by the responsible authority.

3.0 QCS-001 Requirement for Alternate Repair Facility/MRO on Buyer-Designed Items

Appendix QX and Appendix QJ are imposed whether Alternate Repair Facility/MRO is performing maintenance using LM Aeronautics ("LM Aero") released technical data (engineering) or using Military Technical Orders ("T.O.") account for LM Aero designed items.

3.1 Seller must use special process specified in the technical data used to perform MRO whether LM Aero engineering or T.O.

3.2 LM engineering and T.O. technical data may specify different special process requirements.

3.3 When the item is LM Aero designed and the special process called out is listed in QCS-001, Appendices QX and QJ are applicable to the special process specified in either source of technical data LM engineering or T.O.

4.0 QCS-001 Requirement for Alternate Repair Facility/MRO on non-LM Aero OEM-Designed Items:

Seller has the authority and responsibility to approve and control its special processing sources including in-house processes. Seller is not required to use those sources or specifications listed in QCS-001. Seller shall only use the special processes specified in the OEM authoritative technical data or those called out in the T.O. for products that are not the Seller or LM Aero designed items, Seller shall not substitute any process per Seller's discretion.

5.0 Data Requirements

Technical data shall be licensed from the OEM or obtained by Seller from appropriate authoritative controlling organizations. If the design of the article was obtained by a licensing agreement, the applicant must provide evidence of that agreement upon request from Buyer. Technical data must be maintained to latest revisions.

6.0 Incoming Inspection, Teardown Report, and Maintenance Release

Seller shall document and maintain the following for each unit repaired/overhauled and tested:

- a. Completion of an Incoming Inspection and Condition Report
- b. All Acceptance Test Procedures (ATP) must be approved by the Buyer or in accordance with (IAW) the latest revision of the T.O. or OEM repair/overhaul manual.
- c. Teardown Report (electronic version)
 1. If the repair/overhaul results in a change in the configuration (i.e., dash number, revision or part number) documentation stating compatibility with the original part must accompany the teardown report.
 2. The teardown report must contain the following:
 - i. Part numbers
 - ii. Serial number, if serialized
 - iii. Parts removed and replaced
 - iv. If the part was Repaired or Overhauled
 - v. Test reports, if applicable
 - vi. Applicable Software version/revision
 - vii. T.O. or repair/overhaul manual used to repair the Item including the revision level of the T.O. or repair/overhaul manual
- d. Maintenance Release - A maintenance release/return to service certification or equivalent is required (e.g., FAA 8130-3 (where applicable), DD1574, maintenance release certificate, C of C, etc.)

7.0 Quality Escapes Self Disclosure for Customer-Owned Assets

Aircraft Services

Seller shall immediately report all quality escapes identified by Customer to the program's Sustainment Quality Organization at the following address:

For the C-130 Program:

Lockheed Martin Aeronautics Company
86 South Cobb Drive
Marietta, Georgia 30063-0195

Attention: C-130 Contracts
Department F862, Zone 0195

For the F-35 Program:

Reported per Contract agreement

Seller performing O-level or D-level maintenance shall submit to Buyer's Sustainment Quality Organization a report of all non-conformances determined to be Seller assigned responsibility. This report shall be submitted by the 15th day of the month following the end of each quarter ending March 31st, June 30th, September 30th and December 31st.

Component Repair

Seller shall immediately report all quality escapes identified by Customer to the program's Sustainment Quality Organization at the following address:

For the C-130 Program:

Lockheed Martin Aeronautics Company
86 South Cobb Drive
Marietta, Georgia 30063-0195

Attention: C-130 Contracts
Department F862, Zone 0195

For the F-35 Program:

Reported per Contract agreement

Seller performing I-level maintenance shall submit to Buyer's Sustainment Quality Organization a report of all non-conformances determined to be Seller assigned responsibility including new spares and field items that are returned for repair.

This report shall be submitted by the 15th day of the month following the end of each quarter ending March 31st, June 30th, September 30th and December 31st.

8.0 Maintenance Process Verification

Maintenance Process Verification ("MPV") is to verify that new processes (including the personnel, documentation and tooling) are capable of performing the maintenance in compliance with established requirements. MRO is defined as any repair/overhaul activity performed by any repair facility other than the OEM of the item and must meet the following requirements:

- Conformance to all Military Technical Data, OEM's repair/overhaul data or customer requirements
- Conformance to any and all approved test requirements and procedures

New maintenance processes shall be documented, qualified and approved by the customer and/or statutory/regulatory authorities as applicable per this section 8.0. The process 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.

REQUIREMENTS

- 8.1 All elements of the MPV requirements are applicable to the PO line item(s) referenced on Buyer's PO. Any lower-level detail parts which comprise the top level PO line item (if applicable) will also comply with the MPV requirements. Seller shall perform a MPV on the first repair/overhaul of a component. The MPV will be an independent document to verify the repair/overhaul process produced a component that met all the requirements of the repair/overhaul technical data.
- 8.2 Buyer reserves the right to require Seller to perform a MPV, at Buyer's request, at no additional cost, price or fee of this PO.
- 8.3 Seller shall document completion of the MPV in the English language.
- 8.4 All elements of the MPV requirements are applicable to the Seller's facility address referenced on Buyer's PO. If the Seller's Maintenance, Repair or Overhaul activity will be performed at or from a location other than the contracted PO address, the Seller must obtain prior approval from the Buyer.
- 8.5 Seller shall use the latest revision of the T.O. or OEM repair/overhaul manual for all repairs or overhauls.
- 8.6 Seller shall only use replacement parts that are specified in the T.O. or OEM repair/overhaul manual. These parts will only be procured from the manufacturer specified in the T.O. or OEM repair overhaul manual. Any substitution of parts not specified in the T.O. or OEM repair/overhaul manual must be approved by the Buyer prior to use. This may require another MPV to be performed.
- 8.7 Seller shall notify Buyer's assigned Supplier Quality Engineer a minimum of 5 days prior to creating or starting any changes identified in 8.6 above.

- 8.8 Seller shall ensure discrepancies and non-conformances, if any, discovered are documented and dispositioned by the appropriate Material Review Board ("MRB") actions, (i.e., Seller's MRB for Seller design and Buyer's MRB for Buyer design).
- 8.9 Seller shall present MPV documentation records for validation to Buyer's assigned Supplier Quality Engineer, if requested by such Supplier Quality Engineer.
- 8.10 Seller shall maintain documentation of MPV results on each deliverable end Item for the period specified by this PO. Seller shall provide to Buyer, within 48 hours of a request by Buyer, a complete copy of MPV reports at no increase in the cost, price, or fee of this PO.
- 8.11 Seller shall use internal processes / procedures, as defined in Seller's Quality Management System, to verify product conformance to the MPV requirements.