

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

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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:

- A. This Quality Clause Q17 is applicable to Sellers performing Maintenance, Repair, and Overhaul (MRO) or modification activities on non-OEM product and to Original Equipment Manufacturers (OEM) with maintenance, repair and overhaul operations acting autonomously from their manufacturing/production operations. This includes Aircraft Services, Component Repair facilities (e.g., back-shops remote or at customer's location) and Alternate Repair Facilities.
- B. Q17 is not applicable when the Depot location operate to Program Partnering Agreements (PA) and Implementation Agreements (IA).

2. DEFINITIONS:

- A. Aircraft Services:
 - Organizational Level (O-Level) Maintenance - occurs at the organizational unit level (e.g., by a single maintenance squadron as part of an aircraft wing) and is typically optimized for quick turn-around to enhance operational availability. Maintenance at this level typically consists of remove and replace (R&R) operations that replace failed or unserviceable Line Replaceable Units (LRU) with a spare or serviceable asset from inventory. Repair-in-Place (RIP) procedures are also common.
 - Depot level (D-Level) - occurs in highly specialized repair depots or at OEM facilities. These sites are typically not at operating locations and usually have extensive diagnostic equipment and manufacturing capabilities. Aircraft overhauls and modifications are typically executed at this repair level.
- B. Component Repair or Intermediate Level (I-Level) Maintenance: I-Level maintenance occurs in specialized back-shops that are typically allocated to multiple operating squadrons (e.g., an entire wing or multiple wings at an operating base). Because it is more specialized, I-level maintenance allows for more thorough diagnostic testing and repair procedures. Spare parts maintained at this level is known as bench stock.
- C. Alternate Repair Facility: OEM repair facilities that are not under the direct management of and not receiving technical direction for the OEM manufacturing site.
- D. Maintenance, Repair and Overhaul Centers - organizations that perform maintenance, overhaul, repair, or modification of an aircraft or of an aircraft component after completion of manufacturing and initial airworthiness certification by the applicable authority; or an OEM organization with maintenance, repair and overhaul operations acting autonomously, or that are substantially different from their manufacturing/production operations.
- E. Aircraft Service Provider (ASP) - a provider of outsourced logistics services. Logistics services encompass anything that involves management of the way resources are moved to the areas where they are required. In business, ASP has a broad meaning that can be applied to any service contract that involves storing or shipping goods. An ASP service may be a single service such as transportation or warehouse storage, or it can be a system-wide bundle of services capable of managing the entire supply chain.
- F. Mishap - an unplanned occurrence or series of occurrences resulting in personal injury or illness or property damage.

3. ALTERNATE REPAIR SOURCES:

- A. Seller shall perform repairs on this PO at Seller's facility. 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.
- B. 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 PO. When statutory or regulatory authority requirements are imposed on this PO, Seller shall also ensure capability approval by the responsible authority.
- C. Approved Processors on Buyer-Designed Items
1. Seller shall comply with Appendix QJ whether using Buyer released technical data (engineering) or using Military Technical Orders (T.O.) to account for LM Aero designed items. Seller shall use the special process requirements specified in the technical data to perform MRO, whether LM Aero engineering or T.O.
 2. When the item is Buyer designed and the special process requirements called out are listed in QCS-001, Appendices QX and QJ are applicable to the special process requirements specified in either source of technical data, either LM engineering or T.O.
- D. Approved Processors on non-Buyer 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 listed in QCS-001. Seller shall only use the special processes specified in the OEM authorized technical data or those called out in the T.O.
- E. Technical data shall be licensed from the 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.
- F. 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 T.O. or OEM repair, overhaul manual or procedures.
 3. Teardown Report (electronic version) - 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 post TT&E without photographic evidence that the damages were pre-existing.
4. Maintenance Release – A maintenance release/return to service certification or equivalent is required (e.g., FAA 8130-3, DD1574, Maintenance Release Certificate, Certificate of Conformance, etc.) Owned Assets:
 1. Seller shall immediately report all quality escapes for customer-owned assets to the following addresses:
 - C-130 Program: Lockheed Martin Aeronautics Co.
Attn: C-130 Contract Dept. F862, Zone 0195
86 S. Cobb Dr.
Marietta, GA 30063-0195
 - All Other Programs: Per contract agreement
 2. Seller performing O-level or D-level maintenance shall submit to Buyer a quarterly report of all nonconformances determined to be Seller assigned responsibility. This report shall be submitted by the 15th day of the month following the end of each calendar quarter.
 3. Seller induced damages shall be immediately reported to Buyer, in writing. All work of affected assets shall be suspended until Buyer approval to continue with the repair is provided in writing.
- H. Maintenance Process Verification
1. Seller shall perform a Maintenance Process Verification (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. 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.
 3. All elements of the MPV requirements are applicable. 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.
 4. Buyer reserves the right to require Seller to perform a MPV, at Buyer's request, at no additional cost, price or fee to this PO.
 5. Seller shall document the MPV in the English language.
 6. Seller shall present MPV documentation records for validation to Buyer's assigned SQE, when requested.
 7. 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, a complete copy of MPV reports at no increase in the cost, price, or fee to this PO.
 8. Seller shall use internal processes and procedures as defined in Seller's Quality Management System, to verify product conformance to the MPV requirements.
- I. Requirements:
1. Seller shall use the latest revision of the T.O. or OEM repair/overhaul manual for all repairs or overhauls.

2. Seller shall only use replacement parts that are specified in the T.O. or OEM repair/overhaul manual. Procured parts must have traceability back to the approved sources or 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 shall be approved by Buyer in writing prior to use.
3. Seller shall notify Buyer's assigned Supplier Quality Engineer (SQE) a minimum of 5 days prior to creating or starting any changes identified above (para i.2).
4. Seller shall ensure any discovered discrepancies or nonconformances are documented and dispositioned by the appropriate Material Review Board (MRB) (i.e., Seller's MRB for Seller designed items and Buyer's MRB for Buyer designed items).

4. MAINTENANCE, MODIFICATION, REPAIR AND OVERHAUL LABOR SERVICES

- A. Seller shall maintain a third party certified Quality Management System as follows:
 - AS9100**, Quality Management Systems – Requirements for Aviation, Space and Defense Organizations.
 - AS9110**, Quality Management Systems – Requirements for Aviation Maintenance Organizations.
 - ISO9001**, ESIA, FAA Certifications, etc. are valid and appropriate certifications and can be accepted based on contract structure, customer requirements and supplier inability to achieve and maintain an AS9100 type certification.
1. Intra-Work Transfer Agreements (IWTAs) that do not possess a third party certification shall operate to processes and procedures deemed acceptable by Buyer as defined in a Quality Manual or Quality Management Plan.
2. Requirements to manage operations to applicable sections of Uniformed Service Standards (i.e., Air Force Instructions or NAVAIR clauses) will be executed in accordance with contractual agreements and should be considered as exceptions to the QMS requirements in b.ii.1-3.
3. Seller shall maintain, at a minimum, a quality manual or detailed quality policies and procedures that identify unique Buyer requirements. Seller shall conduct PO review to identify Buyer requirements for each PO.
- 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 1 calendar day of any mishap during the contracted period of performance.
- C. Seller shall maintain complete records of all manufacturing, inspections, tests, First Article Inspections, assembly conformity inspections, certifications and shipping.
- D. Seller shall maintain configuration management of the product and processes required to effectively execute the work.
- E. 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 the PO.

- F. Maintenance Process Verification (MPV)
 - 1. 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, Trial Kit Installations or Kit Proofing. This verification will include documentation, personnel qualification, and tools/tooling requirements.
 - 2. Seller shall retain verification documentation. Changes to previously verified processes will be controlled.
- G. Seller shall have a process for training employees before they perform 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.
- H. Defense Contract Management Agency Instruction (DCMAI) 8210.1 – If Defense Federal Acquisition Regulation Supplement (DFARS) 252.228-7001, *Ground and Flight Risk Clause* (GFRC) is imposed on this PO, Seller shall comply with all established processes and procedures supporting this requirement.
- I. 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; and (4) Process Audits
- J. Where applicable, Seller shall prepare and sign a Certificate of Conformance (CoC), Certificate of Incorporation (Col) 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, Col or LoC.

5. THIRD PARTY LOGISTICS AIRCRAFT SERVICE PROVIDER

- A. Seller shall comply with the latest revision of Appendix Q3L in effect as of the date of the Request for Proposal (RFP), unless otherwise amended by Buyer and Seller prior to PO issuance.
 - 1. Aircraft Service Providers (ASP) providing services not associated with hazardous material or explosives shall maintain an ISO-9001 Quality Management System certified by a 3rd party accredited registrar listed in the *On Line Aerospace Supplier Information System* (OASIS).
 - 2. ASPs providing services associated with hazardous material or explosives shall maintain a Quality Management System in compliance with ISO-9001. Upon request by Buyer, Seller shall provide evidence of such compliance.
- B. Seller shall maintain Internet access for obtaining requirements of this PO.
- C. Seller shall not outsource core contracted services as defined in the PO or by Buyer, unless approved in writing by Buyer.
- D. Seller shall notify Buyer's Supplier Quality Engineer (SQE), in writing, within 10 days of any change in its quality system status or adverse action (i.e., Level II or II Corrective Action Requests, major findings by the 3rd party registrar, suspension of Government Source Inspection, etc.) taken by Seller's customer, a regulatory agency (e.g., DCMA, FAA, CAA, OSHA, DoD, EPA, TSA, etc.), a third party registrar, or an international government or regulatory agency.

- E. Seller shall notify the Buyer, in writing, at least 90 days in advance of any sale, relocation, closure, or transfer of Seller's operations, subject to any legal or regulatory restrictions. Seller shall include the following, as a minimum, in the written notification:
- Purpose of relocation
 - Address of new location(s)
 - Assessment of actual or potential impact to current POs,
 - Risk mitigation plan to ensure compliance to existing requirements.
 - Plan defining the identification, storage, protection, retrieval, and retention of records,
 - Master schedule and timeline of relocation activities, and
 - Relocation Coordinator/Point of Contact
- F. Upon request by Buyer, Seller shall provide copies of records, reports, specifications, drawings, inspection and test results, and other documentation in English, at no additional cost, price, or fee.
- G. Seller shall include any Buyer-provided CoC inside the product's package.
- H. Seller shall implement appropriate environmental controls for the preservation of Buyer's products. Environmental controls include, but are not limited to, temperature control and special handling for hazardous materials, as specified in the PO.
- I. Seller shall maintain a Foreign Object Damage (FOD) Prevention Program that is compliant to National Aerospace Standard NAS-412, *Foreign Object Damage/Foreign Object Debris (FOD) Prevention*.
- J. Seller shall notify Buyer in writing within 48 hours of Seller induced/responsible damage to items during routine repair, modification or handling, to include kitting. When directed by Buyer, Seller shall initiate a Supplier Quality Assurance Report (SQAR) utilizing the on-line system located at www.lockheedmartin.com/us/aeronautics/materialmanagement.html under *Quality Requirements>Corrective Action*.
- K. Seller shall maintain complete records of nonconformances, dispositions, assignable causes, corrective and preventive actions, and effectiveness of corrective actions. Seller shall make such records available for at least (3) years after completion of this PO, or for longer periods if specified elsewhere in this PO at no additional cost, price, or fee.
- L. Buyer reserves the right to perform item inspections, surveys, and system or process surveillance as part of its verification of conformance to the requirements of this PO, unless restrictions are in place by a regulatory agency. Seller shall provide suitable facilities at Seller's location for Buyer to perform these tasks, to include high speed Internet access.
- M. Seller shall make access available to regulatory agency personnel.
- N. Seller shall ensure effective corrective and preventive action is taken to prevent, minimize, or eliminate improper material handling/storage, material damage, or improper kitting, as applicable. Seller shall provide effective corrective and preventive action and trend data upon request by Buyer and ensure Seller's quality system has the capability to report any occurrence of improper material handling/storage, material damage, or improper kitting, as applicable.