

External Provider Quality Requirements

The latest issue to this document is the version that is available on the Lockheed Martin Logistics Services Supplier Quality Management website:
<http://www.lockheedmartin.com/us/suppliers/bu-info/aeronautics/sustainment-services.html>

Summary of Changes: Complete rewrite to align with LM Aeronautics Appendix QX, AS9100D / AS9110C.

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The terms “Item(s)”, “PO”, “External Provider”, and “Buyer” as used herein, have the same meaning as the terms “Work”, “Contract”, “External Provider”, and “Lockheed Martin”, respectively.

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Questions regarding QA022-01 or the applicability of QA022-01 shall be addressed to Lockheed Martin's Supply Chain Management Representative (Buyer) who administers this Purchase Order.

Copies of Aerospace Standards documents can be obtained from the Society of Automotive Engineers may be obtained at www.sae.org.

1. Quality Requirements

External Provider shall meet the requirements of the latest revision of QA022-01 and all applicable requirements therein in effect as of the date of this PO. External Provider shall:

- a. Ensure all applicable QA022-01 requirements herein and other quality requirements in this PO are imposed upon External Providers and manufacturing facilities at all tiers working on Buyer's product.
- b. Maintain Internet access for obtaining requirements of this PO.
- c. Ensure compliance to all quality requirements identified elsewhere in this PO.

2. Supplemental Quality Requirements

- a. Quality Notes identified in this PO under Item Text define unique and specific requirements relevant to the item(s) being procured.
- b. External Provider may obtain definitions for Quality Notes, e.g. C001, C003, MP08, etc, referenced in this PO from Buyer's website at: <http://www.lockheedmartin.com/us/suppliers/bu-info/aeronautics/sustainment-services.html>.
 1. Select the hyperlink titled LM Logistic Services Quality Notes.
- c. External Provider shall ensure all quality notes on Buyers PO are flowed to their sub-tier supplier as their PO requirement.
- d. External Provider shall ensure the effectiveness of controls applied by their sub-tier supplier.
- e. External Provider shall ensure that its sub-tier supplier's personnel have the required training and experience appropriate with the requirements necessary for the performance of this PO.
- f. Sampling: Unless specific requirements relevant to sampling plans are denoted in this PO, External Provider shall have the right to use sampling plans, provided the sampling plans are in accordance with existing industry, military or Government standards, or have been prior approved in writing by Buyer.

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3. Quality Management System Requirements

External Provider shall establish and maintain an Aerospace Standard (AS), International Organization for Standardization (ISO), or Quality Management System (QMS) approved by Lockheed Martin.

- a. External Provider should have a current third party certification from an accredited registrar listed in the "On line Aerospace Supplier Information System" ([OASIS](#)) per the following criteria. For all products, except as defined below:
 1. AS9100 is required for external providers performing design, develop, or provide products and services manufacturing.
 2. AS9110 is required for external providers performing maintenance or continuing airworthiness management services on articles and products. External Providers with AS9100 certification must have a Scope of Approval that includes Maintenance Repair Organization (MRO) activity if AS9110 certification is not held.
 3. AS9120 is required for external providers performing as distributors that procure parts, materials, and assemblies and resells these products. External Providers acting as nonvalue added distributor with AS9100 certification must have a Scope of Approval that includes Distribution if AS9120 certification is not held.
 4. ISO 9001, as a minimum, is required for supplier providing ground support or manufacturing support equipment.
 5. NADCAP approval is required prior to performing special processes as required by engineering documents when Lockheed Martin does list the process in Specification QCS-001.
 6. Approved Quality System and /or Special Process Survey performed by LM Corporate approved Surveyor.

4. Quality System Changes & Customer Findings

External Provider shall notify Buyer's Supplier Quality Engineer, in writing, within 10 days of any of the following:

- a. Change in its quality system status.
- b. Loss of third party registrar's certification status.
- c. Change in External Providers quality organization, process or procedures that affects conformity of any Item.
- d. Adverse action taken by External Providers customer, the Government entity (e.g. FAA, CAA, OSHA, DoD, EPA, etc.), Third Party Registrar, International Government Agencies, or NADCAP to include, but is not limited to, any of the following:
 1. Issuance of a Level II Corrective Action Request (CAR) associated with Buyer Items.

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- 2. Issuance of any Level III CAR.
- 3. Suspension of Government Source Inspection (GSI).
- e. External Provider shall provide actions taken or planned actions related to any events listed in a through d above with the written notification.
- f. External Provider shall provide within 30 days written notification the approved corrective actions taken in response to any adverse action reported in d above.

5. Sale, Relocation, Closure or Transfer of Manufacturing Operations

External Provider shall notify Supplier Quality Engineer and Buyer, in writing, at least 90 days in advance of any sale, relocation, or transfer of External Providers manufacturing operations. External Provider shall include the following, as a minimum, in the written notification:

- a. Purpose of the relocation.
- b. Address of the new location(s).
- c. Assessment of actual or potential impact to current PO's.
- d. Risk mitigation plan to ensure compliance to existing requirements.
- e. Plan defining the identification, storage, protection, retrieval and retention of records.
- f. Master schedule and timeline of relocation activities.
- g. Relocation Coordinator/Point of Contact.

6. Language

Upon request by Buyer, External Provider shall provide all External Provider records, reports, specifications, drawings, inspection and test results and other documentation in English.

7. Competence, Awareness & Communication

External Provider shall ensure that its personnel have the required training and experience appropriate with the requirements necessary for the performance of this PO.

- a. Their contribution to product or service conformity.
- b. Their contribution to product safety.
- c. The importance of ethical behavior.

8. Foreign Object Debris/Damage (FOD) Prevention

External Provider shall maintain a FOD prevention program in accordance with National Aerospace Standard NAS-412, Foreign Object Damage/Foreign Object Debris (FOD) Prevention.

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- a. Whenever and/or wherever FOD entrapment or foreign objects can migrate, External Provider shall ensure that applicable requirements are flowed down to External Providers subcontractors at every tier.
- b. Prior to closing inaccessible or obscured areas and compartments during assembly, External Provider shall inspect for foreign objects/materials and ensure no FOD barriers remain embedded, e.g. embedded protective plugs. External Provider shall ensure tooling, jigs, fixtures, and test or handling equipment are maintained in a state of cleanliness and repair sufficient to prevent FOD.
- c. By delivering Items to Buyer, External Provider shall be deemed to have certified to Buyer that such Items are free from any foreign materials that could result in FOD.

9. Prevention of Counterfeit / Suspect Unapproved Parts

- a. External Provider shall establish and maintain a Prevention of Counterfeit Parts Plan utilizing Aerospace Standards AS5553 and/or AS6174 to ensure that Counterfeit Work is not delivered to Buyer. The purpose of External Providers Plan shall be to develop a robust process to prevent the delivery of counterfeit commodities and to control counterfeit or suspect counterfeit parts/materials. Counterfeit Parts means an unauthorized copy, imitation, substitute, or modified part (e.g., material, part, component), which is knowingly misrepresented as a specified genuine part of an original or authorized manufacturer.
- b. External Provider shall establish and maintain a Prevention of Suspect Unapproved Parts Plan utilizing Federal Aviation Administration (FAA) Advisory Circular AC 21-29 to ensure that Suspect Unapproved Work is not delivered to Buyer. The purpose of External Providers Plan shall be to develop a robust process to prevent the delivery of unapproved commodities and to control suspect unapproved parts/materials. Suspected Unapproved Part means a part for which there is objective and credible evidence indicating that the part is likely an unapproved or counterfeit part.
- c. For purposes of this clause, Work consists of those parts/materials delivered under this Contract that are the lowest level of separately identifiable items (e.g., articles, components, standard hardware, goods, raw materials and assemblies). "Counterfeit Work" means Work that is or contains unlawful or unauthorized reproductions, substitutions, or alterations that have been knowingly mismarked, misidentified, or otherwise misrepresented to be an authentic, unmodified part from the original manufacturer, or a source with the express written authority of the original manufacturer or current design activity, including an authorized aftermarket manufacturer. Unlawful or unauthorized substitution includes used Work represented as new, or the false identification of grade, serial number, lot number, date code, or performance characteristics. "Suspect Counterfeit Work" means Work for which credible evidence (including, but not limited to, visual inspection or testing) provides reasonable doubt that the Work part is authentic.

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- d. External Provider shall only purchase products to be delivered or incorporated as Work to Buyer directly from the Original Component Manufacturer (OCM)/Original Equipment Manufacturer (OEM); OCM/OEM authorized distributor chain, Aftermarket Manufacturer, or Authorized Reseller. These products shall have verification that Work is traceable to OCM/OEM; OCM/OEM authorized distributor chain, Aftermarket Manufacturer, or Authorized Reseller that identifies the name and location of all the supply chain intermediaries from the part manufacturer to the direct source of the product for the External Provider.
- e. Work can only be acquired from independent distributors or brokers in cases of diminishing material supply (DMS) or obsolescence and shall be subjected to a screening process appropriate to the commodity in accordance with the Counterfeit / Suspect Parts Prevention Plan. If traceability is not obtainable, written notice shall be provided to the Buyer prior to delivery with records of evidentiary tests and inspections performed and conformance of the product to specified acceptance criteria that ensures verification activities taken to assure authenticity. Written notice is not required for raw material and standard hardware purchased from independent distributors or brokers, but products must be able to provide commodity level traceability to the Original Manufacturer.
- f. External Provider shall notify Buyer with the pertinent facts if External Provider becomes aware or suspects that it has furnished Counterfeit Work. External Provider shall provide to Buyer, upon request, the supply chain traceability to an Original Manufacturer or authorized distributor chain that identifies the name and location of all the supply chain intermediaries from the part manufacturer to the direct source of the product for the External Provider.
- g. External Provider shall include this clause or equivalent provisions in lower tier subcontracts for the delivery of items that will be included in or furnished as Work to Buyer.
- h. External Providers eligible for utilization of the Government-Industry Data Exchange Program (GIDEP) shall utilize the GIDEP process to alert the industry of encountered counterfeit parts.

10. Government/Industry Data Exchange Program (GIDEP) Membership

If External Provider is eligible for GIDEP membership, External Provider is required to be a member of GIDEP.

11. Documented Information

- a. Maintain complete records of the following:
 - 1. All manufacturing, inspection, test, CoC, and shipping.
 - 2. Process capability or tooling controlled per TMS-MC-015, if applicable.

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3. All nonconforming material, dispositions, assignable causes, corrective and preventive actions, and effectiveness of corrective actions.
- b. Make records available for at least three (3) years after completion of this PO or for longer periods if specified elsewhere in this PO.
- c. Maintain records of all QCS-001 "Work" performed and/or procured for at least seven (7) years after completion of this PO or for longer periods if specified elsewhere in this PO.
- d. Upon Buyer's request, forward records to Buyer at no additional cost, price, or fee to Buyer.

12. Buyer-Certified Materials

External Provider shall establish and maintain controls to prevent the use of noncertified materials when Buyer-certified materials (e.g. Engineering Materials and Approved Products [EMAPs]) are required.

13. Monitoring & Measurement Resources - Measurement Traceability

External Provider shall maintain a documented calibration system for the calibration and maintenance of tools, jigs, inspection and test equipment. External Provider shall have and maintain a calibration system compliant to ISO 17025, ISO10012-1.

14. Buyer-Furnished, External Provider - Manufactured or External Provider - Owned Tooling

- a. External Provider shall include in its documented quality system written procedures for the control, maintenance, and calibration of special tooling, jigs, inspection and test equipment, and other devices used in manufacturing processes.
- b. External Provider shall comply with the requirements of Buyer's tooling manual (TMS-MC-015). Access to this manual can be found on the Supply Chain Management Home Page at <http://www.lockheedmartin.com/us/aeronautics/materialmanagement.html> under Quality Requirements, Control Specs.

15. Point of Acceptance

- a. Unless otherwise specified (reference Quality Notes identified in PO Item Text) Buyer point of acceptance is destination.
- b. The point of acceptance is indicated on each PO issued. When this PO requires Buyer Accept at Source, Buyer acceptance can involve periodic surveillance by Buyer of External Providers quality system, manufacturing processes or physical Item, including work at External Providers sub-tiers. Based on External Providers performance, Buyer acceptance activities may result in the requirement for full-time oversight of External Providers and/or External Providers sub-tier suppliers. The

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location of performance of Buyer acceptance, prior to shipment, shall be the External Providers facility address referenced on Buyer's PO.

16. Facility Access

- a. External Provider shall provide or obtain for Buyer, Buyer's customers and regulatory agency personnel, access to all facilities where work is being performed or is scheduled to be performed, including those facilities of External Providers subcontractors, in order to perform Item inspections, surveys or system/process surveillance as part of verification of conformance to the requirements of this PO. External Providers denial of any such access may result in inactivation of External Providers approval. External Provider shall include the provisions of this facility access requirement in its POs with its subcontractors, for this PO.
- b. External Provider shall provide the following, at no increase in price, cost or fee to Buyer, Buyer's customers or regulatory agencies:
 1. Suitable facilities at External Provider and External Providers subcontractors' manufacturing locations for Buyer, Buyer's Supplier Quality Engineer, Buyer's customer and regulatory agency representatives to perform Item inspections, surveys or system/process surveillance.
 2. Buyer's Supplier Quality Engineer with high speed internet access (DSL or wireless).

17. Corrective Action, Preventive Action, Request and Reporting

- a. External Provider shall:
 1. Ensure effective corrective and preventive action is taken (including repetitive nonconformance's dispositioned "Use-As-Is" or "Repair" by Buyer's or External Providers Material Review Board (MRB) actions to prevent, minimize, or eliminate non-conformances.
 2. QMS shall ensure that non-conforming material is not used for production purposes.
 3. Records of all nonconforming material, dispositions, assignable causes, corrective actions, and effectiveness of corrective actions for the period specified in this PO.
 4. Evaluate each nonconformance for its potential to exist in previously produced Items and notify Buyer, in writing, within 24 hours of potential or verified non-conformances impacting flight safety on Items in transit or delivered to Buyer.
 5. Notify Buyer in writing within 5 working days of all other potential or verified non-conformance.
 6. Provide effective corrective and preventive action upon request by Buyer and, when requested by Buyer, provide trend data.

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7. Assess all Buyer identified nonconformance(s), whether or not Item(s) was/were returned to External Provider, and take appropriate actions to ensure causes of nonconformance are corrected.
8. Perform the following actions when External Provider has tested any returned Item and External Provider cannot verify a Buyer reported non-conformance:
 - i. Contact Buyer for additional verification testing and disposition.
 - ii. Do not return non-verified failure Items unless authorized by Buyer.

18. Control of Nonconforming Product / Material Review Process

- a. Buyer and Buyer's customers have the right to refuse to accept any and all External Provider non-conformance.
- b. External Provider shall ensure External Providers quality system has capability to report nonconformance(s) on Critical Safety Item (CSI) in full compliance with Defense Federal Acquisition Regulation Supplement (DFARS) 252.246-7003.
- c. When Buyer's customer has delegated oversight/surveillance of Buyer's work to a cognizant Government representative at External Providers facility, External Provider shall submit all material review dispositions for Buyer-related work to the cognizant Government representative, for concurrence when requested by the Government representative.
- d. Buyer has the right to limit or eliminate Material Review (MR) processing on work defined by this PO.
- e. External Provider MR for External Provider designed or Buyer-designed Items is not applicable to Buyer - Furnished Equipment (BFE). BFE is equipment or Items provided to External Provider from Buyer; therefore not procured or built by External Provider.

External Providers continued processing, prior to obtaining Buyer's MR disposition, of any nonconforming BFE shall be at External Providers risk. External Provider shall request Buyer MR Disposition of BFE.

- f. For External Provider - designed Items, MR Dispositions are limited to non-conformances that do not affect a parameter controlled by Buyer drawing or specification, where form, fit or function, interchangeability, Critical Safety Characteristic (CSC) related to CSI service life or reliability is affected. External Provider shall submit requests for recommended disposition of non-conformances, if any, affecting any such parameter(s) to Buyer for Major Variance approval as defined in this PO.
- g. For Buyer-designed Items, External Provider MR Process is limited to scrapping of Items, eliminating the nonconformance by rework to engineering, or returning to vendor. External Provider shall request repair or Use-as-Is disposition from Buyer's MRB. External Providers continued processing shall be limited to subsequent

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operations that do not hide, alter or limit the ability to inspect, disposition or repair Item unless External Provider has received written approval from Buyer.

1. When Buyer has delegated MR to External Provider for Buyer-designed Items, External Providers process shall be limited to the scope provided in the MR delegation.
 2. External Providers request for Buyer MR Disposition of External Provider or Buyer-designed Items shall be submitted to the Buyer.
- h. When requested by Buyer, External Provider shall provide Buyer's Supplier Quality Engineer with External Providers MRB disposition information related to Buyer's Item(s).

19. QCS-001 Requirements for Buyer-Designed Items

- a. QCS-001 sets forth both the process sources and the processes that require Buyer approval, prior to use for Items delivered to Buyer. A controlled process is an operation performed on an Item where the operation cannot be readily verified subsequent to its conclusion. Controlled processes have verifiable controls inherent to the process, e.g. heat treat, plating, nondestructive testing, etc.
- b. External Provider and External Providers sub-tiers shall meet all requirements of the latest version of QA022-02 in effect as of the date of this PO when External Provider or External Providers sub-tiers are performing any Buyer controlled process identified in QCS-001.
- c. External Providers providing perishable tooling and Tool Service Requirements List (TSRL) Items are not required to use QCS-001 approved process sources or provide QCS-001 Quarterly Usage Reports.
- d. External Providers utilization of Buyer-approved sources does not relieve External Provider from the obligations to ensure subcontracted sources are in full compliance with applicable process specifications and to deliver conforming Items.

20. QCS-001 Requirements for External Provider-Designed Items

External Provider has the authority and responsibility to approve and control its special processing sources including in-house processes. External Provider is not required to use those sources or specifications listed in QCS-001.

21. Maintenance, Repair, or Overhaul Activities

This section is applicable to External Providers performing Maintenance, Repair, or Overhaul Activities on Non-OEM product and / or Original Equipment Manufacturer (OEM) organizations with maintenance, repair and overhaul operated "autonomously" from their manufacturing/production operations.

- a. Subcontracting of Repair Items:

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1. External Providers receiving Purchase Orders for repair Items shall perform repair at External Providers facility. Subcontracted work related to tear down, repair, re-assembly, and functional test of the end item or detailed components is prohibited unless authorized in External Providers scope of approval or in advance by Buyer.
- b. Capability list:
1. External Provider shall only have authority to perform repairs Items for which it has demonstrated capability.
 2. External Provider may perform maintenance, preventive maintenance, or alterations on an article if the article is listed on a current capability list.
 3. The capability list must identify each article by make and model or other nomenclature designated by the article's manufacturer.
 4. If the article is not listed on its current capability list but can be qualified by similarities, External Provider shall perform a self-evaluation to determine that it has all of the housing, facilities, equipment, material, technical data, processes, and trained personnel in place to perform the work on the material. The External Provider shall retain on file documentation of the evaluation.
 5. Personnel authorized to approve changes to capability list shall be identified.
- c. Data Requirements:
- External Provider shall maintain the documents and data required for the performance of maintenance, preventive maintenance, or alterations. The following documents and data must be current and accessible when the relevant work is performed:
1. Maintenance manuals
 2. Overhaul manuals
 3. Standard practice manuals
 4. Service bulletins
 5. Airworthiness directives
 6. Instructions for continued airworthiness
 7. Other applicable data acceptable to or approved by Buyer
- d. Equipment, Tools and Materials
1. External Provider shall have the equipment, tools, and materials necessary to perform the maintenance, preventive maintenance, or alterations for all items list its capability list.

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2. The equipment, tools, and material must be those recommended by the manufacturer of the article or must be at least equivalent to those recommended by the manufacturer.
 3. The equipment must be capable of performing all necessary tests and checking all required parameters of the articles. The level of accuracy should be equal to or better than that recommended by the manufacturer of the equipment/tools.
 4. To determine equivalency of equipment, tools, and/or materials, the External Provider shall compare the technical requirements of the proposed equipment, tools, and/or materials previously required by the manufacturer.
 5. If the External Provider will be using equipment, tools, or materials other than those recommended by the manufacturer, the External Provider shall obtain approval from the Buyer.
- e. Installation of Approved Parts
- External Provider shall establish, implement, and maintain a process that ensures approved parts:
1. Are properly identified, as appropriate for the product or the article to which they are to be fitted.
 2. Are acceptable for installation on the product or the article, in accordance with the applicable requirements from the competent authority or the customer.
 3. If used, are in a satisfactory condition and that their airworthiness is ascertained, in particular applicable airworthiness directives have been accomplished.
 4. If life limited, do not exceed those limits and that all related documented information is available.
 5. If removed from an aircraft involved in an accident or incident, are processed per a specific work order including all inspections and repairs deemed necessary to ensure parts are airworthy prior to installation.
 - i. Such a work order requires technical data from a source acceptable to the competent authority and the customer, as appropriate.
 6. If dismantled, have been managed by an External Provider that:
 - i. Holds the required approvals.
 - ii. Complies with applicable requirements related to environmental impact.
 - iii. Is able to manage the necessary documented information.