LM Logistic Services Quality Notes Conversion Chart

The latest issue to this document is the version that is available on the Lockheed Martin Logistic Services Supplier Quality Management website:

http://www.lockheedmartin.com/us/suppliers/bu-info/aeronautics/sustainment-services.html


<table>
<thead>
<tr>
<th>Quality Note</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quality Program Notes</strong></td>
<td></td>
</tr>
</tbody>
</table>
| C001 | **QA022-01 – External Provider Quality Requirements**  
External Provider shall comply with the requirements of Buyer's “External Provider Quality Requirements” outlined in QA022-01 (latest revision). Copies of this document may be found on Lockheed Martin Supplier Net or contact the buyer. In the event of conflicting requirement(s) between QA022-01 and a specified requirement within the contract, the specified requirement(s) will take precedence. QA022-01 may be accessed at:  
http://www.lockheedmartin.com/us/suppliers/bu-info/aeronautics/sustainment-services.html |
| C002 | **QA022-03 – Manufacturing Management External Provider Requirements**  
External Provider shall comply with the requirements of Buyer's “Manufacturing Management External Provider Requirements” outlined in QA022-03 (latest revision). Copies of this document may be found on Lockheed Martin Supplier Net or contact the buyer. In the event of conflicting requirement(s) between QA022-03 and a specified requirement within the contract, the specified requirement(s) will take precedence. QA022-03 may be accessed at:  
http://www.lockheedmartin.com/us/suppliers/bu-info/aeronautics/sustainment-services.html |
| **Certification / Inspection Quality Notes** |
| C003 | **Certificate of Conformance Required**  
External Provider must provide a Certificate of Conformance stating that product supplied under this purchase order meet all applicable purchase order requirements. This certificate shall include:  
1. Purchase Order Number  
2. Requested Part Number  
3. Nomenclature  
4. Condition  
5. Serial Number (as applicable)  
The certificate shall bear the signature or stamp and title of an authorized agent of the External Provider. |
## LM Logistic Services Quality Notes Conversion Chart

<table>
<thead>
<tr>
<th>Quality Note</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C004</strong></td>
<td><strong>Test Reports Required - Fasteners</strong></td>
</tr>
<tr>
<td></td>
<td>1. External Provider must provide with each shipment the manufacturer’s test report certifying items furnished comply with applicable specification(s). The test report will include the lot number and specification(s), including revision level(s), for which the item has been tested.</td>
</tr>
<tr>
<td></td>
<td>2. Where specification(s) require quantitative limits on chemical, mechanical, or physical properties, the test report must have actual results from an examination/test.</td>
</tr>
<tr>
<td></td>
<td>3. Threaded fasteners having a diameter of 0.25 inch or greater including bolts, nuts, screws, and studs that are manufactured to National/Military Standards such as MS, AN, NAS, etc. require reports.</td>
</tr>
<tr>
<td><strong>C005</strong></td>
<td><strong>Test Reports Required - Raw Material</strong></td>
</tr>
<tr>
<td></td>
<td>1. External Provider must provide with each shipment the manufacturer’s test report that certifies materials furnished comply with applicable specification(s). The test report will include the specification(s), including revision levels for which the material has been tested and specific lot numbers.</td>
</tr>
<tr>
<td></td>
<td>2. Where specification requires quantitative limits on chemical, mechanical, or physical properties, the test report must have actual results from the examination/test. Aluminum products (except castings) may include chemistry range only. Physical properties must indicate actual values.</td>
</tr>
<tr>
<td></td>
<td>3. In the case of converted material produced from raw material previously certified by the original manufacturer, External Provider must provide test results of how the process altered the properties of the certified manufactured material.</td>
</tr>
<tr>
<td></td>
<td>4. Each shipment to Buyer must consist of items from a single lot.</td>
</tr>
<tr>
<td></td>
<td>5. Where the supplier utilizes test reports to verify purchased product they shall periodically validate test reports for raw material. These records shall be made available upon request.</td>
</tr>
<tr>
<td><strong>C006</strong></td>
<td><strong>Maintenance Release</strong></td>
</tr>
<tr>
<td></td>
<td>Maintenance release / return to service certification or equivalent required with shipment.</td>
</tr>
<tr>
<td></td>
<td>Examples include FAA 8130-3 (as applicable), DD1574, maintenance release certificate, etc.</td>
</tr>
<tr>
<td>Quality Note</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>C009 Teardown Report</td>
<td></td>
</tr>
<tr>
<td><strong>External Provider</strong> must provide a teardown report for each unit overhauled/repair and tested. If the overhaul/repair 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 paperwork. Teardown report must contain the following:</td>
<td></td>
</tr>
<tr>
<td>1. Parts removed and replaced as applicable</td>
<td></td>
</tr>
<tr>
<td>2. Part Number</td>
<td></td>
</tr>
<tr>
<td>3. Status/Work</td>
<td></td>
</tr>
<tr>
<td>4. Technical Order (T.O.) or Repair / Overhaul Manual utilized including revision level</td>
<td></td>
</tr>
<tr>
<td>5. Serial Number (as applicable)</td>
<td></td>
</tr>
<tr>
<td>6. Test Results (as applicable)</td>
<td></td>
</tr>
<tr>
<td>C010 Source Inspection Required</td>
<td></td>
</tr>
<tr>
<td>Lockheed Martin Source Inspection required at the manufacturer's/repair facility. <strong>External Provider</strong> must notify buyer seven calendar days in advance of proposed quality verification. Evidence of the completed inspection must be shown on the shipping documents. You are required to provide reasonable access for the Source Inspector to any drawings, documents, and inspection equipment at any point in the manufacturing process.</td>
<td></td>
</tr>
<tr>
<td>C011 Documented Traceability Requirement</td>
<td></td>
</tr>
<tr>
<td>1. Items ordered on this purchase order require traceability. <strong>External Provider</strong> must maintain a documented system for recording and controlling of traceable items in accordance with specified requirements with full connectivity to Original Equipment Manufacturer (OEM) or last Federal Aviation Administration (FAA) certificated facility.</td>
<td></td>
</tr>
<tr>
<td>2. Where no requirements are otherwise specified in the purchase order. The <strong>External Provider</strong> must:</td>
<td></td>
</tr>
<tr>
<td>a. Maintain records of each item to ensure traceability to parent material by heat/lot number and producer’s name. Such data shall be identified on the shipper.</td>
<td></td>
</tr>
<tr>
<td>b. Identify each item with buyer /manufacturer's part number, (as appropriate) heat/lot number, producer's name and grain direction. (When applicable).</td>
<td></td>
</tr>
<tr>
<td>c. Associated documents must be maintained at least six (6) years.</td>
<td></td>
</tr>
</tbody>
</table>
## LM Logistic Services Quality Notes Conversion Chart

<table>
<thead>
<tr>
<th>Quality Note</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C012</td>
<td><strong>Source / Specification Control Drawings</strong>&lt;br&gt;Lockheed Martin Source or Specification controlled product must be traceable to the sources (CAGE Code) listed on the Lockheed Martin drawing. When the listed source is no longer available the External Provider shall contact the Procurement Representative listed on the Purchase Order to obtain LM Engineering disposition.</td>
</tr>
<tr>
<td>C017</td>
<td><strong>Drop Ship Authorized</strong>&lt;br&gt;External Provider shall provide the Buyer with electronic copy of the original documentation required by the Purchase Order. This includes a copy of the packing slip referencing the waybill number with date of shipment from the External Provider’s facility.</td>
</tr>
<tr>
<td>C019</td>
<td><strong>First Article Inspection (FAI) Requirement</strong>&lt;br&gt;FAI required in accordance with AS9102, or approved by an LM Supplier Quality Management Quality Assurance Engineer.&lt;br&gt;The requirements of this clause do not apply to Hologram identified items or items supplied by other Lockheed Martin locations.&lt;br&gt;1. All elements of this clause 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 comply with the First Article Inspection requirements as stated in AS9102. External Provider may obtain copies of AS9102 from the Society of Automotive Engineers at: <a href="http://www.sae.org/">http://www.sae.org/</a>&lt;br&gt;Forms can be obtained at: <a href="http://standards.sae.org/as9102b/">http://standards.sae.org/as9102b/</a>&lt;br&gt;References to AS9102 in this document refer to the revision in effect at the time of the PO, or External Provider may work to a more current version of AS9102.&lt;br&gt;2. External Provider shall document completion of the FAI in the English language.&lt;br&gt;3. For “Buyer-Designed Items”, the assigned Supplier Quality Engineer may elect to validate the External Providers FAI process for approval at any time throughout the FAI process. Arrangements for FAI validation and approval will be coordinated with the External Provider by the assigned Supplier Quality Engineer.&lt;br&gt;4. Distributors that procure Buyer-designed Items shall ensure that the manufacturer has performed FAI and that documentation is available upon request.&lt;br&gt;5. If External Provider incorporates any engineering change (including software/firmware) that has the potential to affect form, fit, function, safety, or reliability, External Provider, without further direction from Buyer, shall perform partial or full FAI as required by AS9102. External Provider shall perform partial or full FAI to ensure that the changes have had no adverse effect on Items delivered under this PO.</td>
</tr>
</tbody>
</table>
# LM Logistic Services Quality Notes Conversion Chart

<table>
<thead>
<tr>
<th>Quality Note</th>
<th>Description</th>
</tr>
</thead>
</table>
| C019         | **First Article Inspection (FAI) Requirement**: continued  
This partial or full FAI requirement also includes changes to non-deliverable software and revisions in programming used in numerical controlled machines, test stations, coordinated measuring equipment, etc.  
Paragraph 5 augments the requirements of AS9102  
External Provider shall adhere to the requirements of Paragraph 5 and AS9102, which requires the performance of a full or partial FAI when any of the following events occur:  
a. A change in design affecting fit, form, or function of the part.  
b. A change in manufacturing source(s), process(es), inspection method(s), location of manufacture, tooling or materials that can potentially affect form, fit or function.  
c. A change in numerical control program or translation to another media that can potentially affect fit, form or function.  
d. A natural or man-made event, which may adversely affect the manufacturing process.  
e. A lapse in production for two years or as specified by the Customer.  
6. External Provider shall ensure discrepancies and non-conformances discovered during the FAI are documented and dispositioned by the appropriate Material Review Board (“MRB”) actions, (e.g., External Providers MRB for External Provider design and Buyer’s MRB for Buyer design).  
7. External Provider shall comply with the forms usage and completion requirements stated in AS9102. External Provider shall complete all fields, but may mark a field as not applicable by indicating “N/A”, if appropriate.  
8. External Provider shall submit objective evidence of the completed FAI to the current revision for a full or partial FAI. LM Supplier Quality Engineer may use record on file as objective evidence if the product and revision are from the same manufacturer as the FAI on record.  
9. External Provider shall maintain documentation of FAI results on each deliverable end item for the period specified by this PO. |
| C037         | **Breakdown of Kit List Required**  
External Provider must provide a kit list with the individual breakdown of parts with shipment. |
| C040         | **Critical Safety Item (P-3 Aircraft Only)**  
This is a **Critical Safety Item (CSI)** identified by Lockheed Martin P-3 Process Specification C-3000 and STP51-600. This specification establishes the controls necessary for P-3 Critical Safety Items. This specification details specific inspection, testing, serialization and traceability requirements which are in addition to existing Engineering requirements. |
<table>
<thead>
<tr>
<th>Quality Note</th>
<th>Description</th>
</tr>
</thead>
</table>
| **C047**   | **Flight Safety Critical Aircraft Part Acquisition**  
This part is a Flight Safety Critical Aircraft Part (FSCAP) and acquisition process must comply with the Department of Defense (DoD) Material Management Regulation – DoDM 4140.01 |
| **C048**   | **Critical Safety Item**  
This product is a Critical Safety Item (CSI) that contains characteristics whose failure, malfunction or absence could result in death, permanent total disability, or permanent partial disability to personnel, or injuries that may result in hospitalization.  
External Provider must identify to Lockheed Martin the manufacturer if other than that identified on the purchase order prior to commencement of work. |
| **C049**   | **Controlled Processes**  
External Provider shall use the QCS-001 Directory to identify both the process sources and the controlled processes that require Buyer approval, prior to use for Items delivered to Buyer.  
Buyer hereby authorizes External Provider to use Nadcap approved sources for Industry Standard processes controlled by QCS-001.  
External Provider shall ensure that a source is currently approved by Nadcap, prior to a source performing processing on Items.  
External Provider may access Nadcap approved sources at: [https://www.eauditnet.com/eauditnet/ean/user/login.htm](https://www.eauditnet.com/eauditnet/ean/user/login.htm)  
Upon request by Buyer, External Provider shall provide Buyer with objective evidence that External Provider selected and used a source approved by Nadcap at the time processing was performed and at the time Item(s) is/are delivered to Buyer.  
Buyer does not mandate External Providers use of Nadcap approved sources and shall not be responsible for any cost associated with Nadcap accreditation or the use of a Nadcap approved source or process.  
Buyer shall have the right to validate any Nadcap approved source or process using normal survey practices, and shall have the right to disapprove External Providers use of any such source in connection with this PO.  
The list of both Buyer-controlled processes and Buyer-approved sources can be found at: [http://www.lockheedmartin.com/us/aeronautics/materialmanagement.html](http://www.lockheedmartin.com/us/aeronautics/materialmanagement.html)  
1. Select “Quality Requirements”  
2. Select “Supplier Quality Management System”  
3. Select “Supplier Quality Management” and follow instructions |
### LM Logistic Services Quality Notes Conversion Chart

<table>
<thead>
<tr>
<th>Quality Note</th>
<th>Description</th>
</tr>
</thead>
</table>
| **C049**     | **Controlled Processes:** continued  
External Provider shall be responsible for ensuring that External Provider or QCS-001 sources have the appropriate revision level of the process standards/specifications prior to performing processing in connection.  
External Provider shall prepare a Certificate of Conformance (CoC) asserting that the Items contained within this shipment are in total compliance with the requirements of this PO. Items provided under this PO must meet all applicable requirements. Any exceptions shall be annotated in the delivery package. A copy of the CoC shall be included with External Providers product shipper.  
External Providers CoC prepared for each shipment shall include the following data elements/information:  
1. Purchase Order Number  
2. Requested Part Number  
3. Title and specification number (including revision letter) of the process  
4. Name and address of the process or NDT facility  
5. Buyer’s assigned processor number  
6. Date the CoC was issued  
7. Quantity of parts (to include quantity accepted/ rejected)  
8. Signature and title of authorized quality agent of External Provider  
9. Fracture durability classification or serialization when required  
External Provider must provide with each shipment, objective evidence of compliance to material processes specified under this purchase order. Objective evidence may be in the form of, but not limited to, material test results, personnel certification, inspection records, and process sheets. |
| **C099**     | **Manufacturer’s Commercial and Government Entity (CAGE) Code**  
External Provider is to provide Manufacturer’s Commercial and Government Entity (CAGE) Code for each item. The CAGE Code is to be legibly recorded on the External Providers documentation (e.g., shipper or certification). If the manufacturer does not have a CAGE code, this will be annotated on the documentation. |
| **I001**     | **Product is Listed as a DCMA Controlled CSI Item**  
Traceability is required to the Original Equipment Manufacturers (OEM) Cage Code (QA Note C099).  
Receiving Inspection will email the current DCMA representative:  
1. A copy of the Certificate of Conformance  
2. A copy of the Packing Slip is required to be emailed if it lists the OEM’s Cage Code |
# LM Logistic Services Quality Notes Conversion Chart

<table>
<thead>
<tr>
<th>Quality Note</th>
<th>Description</th>
</tr>
</thead>
</table>
| I002         | **Product Requires Logbook / Records Entry**  
Item(s) listed has Removal/Replacement Schedule and Special Tracking Requirements that requires additional data. Refer to the appropriate Technical Manual for the specific requirement. |

## Quality Notes for Container Markings

| M015 | **Bar Coding of Container Required**  
Bar Code all containers unless the Buyer grants deviation.  
External Provider must construct barcodes and apply markings as follows:  
Required bar code data elements:  
1. Purchase Order Number  
2. Purchase Order Line Item Number  
3. Packing Sheet Number  
4. Line Item Quantity in Shipment  
5. Total Cartons per Line Item  
6. Manufacturer’s CAGE Code  
Element Requirements:  
1. Data elements will preferably be in a stacked array. In-line codes may be used if .25 inches are maintained between barcodes and proper order is maintained.  
2. Bar codes must be readable commercial code 3 of 9.  
3. Bar codes will be applied by means of labels.  
4. Bar codes will be a vertical "picket fence" with minimum height of .25 inches and may not contain more than one line item.  
5. Different barcoded containers containing different line items may be consolidated for shipping/handling purposes without barcodes on the consolidation container. External Provider must mark such containers “Contains Multiple Line Items.” Inside, each container must have its own bar code label.  
6. Bar codes must apply to the total quantity of a given line item.  
7. All containers must be bar-coded  
8. If material is "non-markable", (e.g., oily raw stock, etc.) the barcodes may be placed with the packing list.  
9. External Providers who do not have a barcoding capability may use the Free LM Bar Code Generator at the following website:  
### Quality Notes for Packaging

<table>
<thead>
<tr>
<th>Quality Note</th>
<th>Description</th>
</tr>
</thead>
</table>
| **MP01**     | Identification and Packaging Requirement  
Elastomeric Seals, Packing’s/O-rings, Sheet, Strip, Extrusions and Molded Parts:  
1. Storage Identification and Packaging shall be in accordance with SAE ARP5316 Aerospace Recommended Practice for Aerospace Elastomeric Seals and Seal Assemblies (*latest revision, unless otherwise specified by the Purchase Order*).  
2. Identification and Packaging of Preformed Packings/O-Rings shall be in accordance with SAE AMS2817 (*latest revision, unless otherwise specified by the Purchase Order*).  
3. Identification and Packaging for Elastomeric Products: Sheet, Strip, Extrusions Molded Parts shall be in accordance with SAE AMS2810 (*latest revision, unless otherwise specified by the Purchase Order*). |
| **MP02**     | Electrostatic Discharge Protection  
Components ordered by this purchase order/contract require electrostatic protection and must be properly packaged and identified. The packaging must conform to MIL-STD 1686 (*latest revision*) or equivalent as specified for electrostatic sensitive protection with clear markings illustrating electrostatic sensitive equipment. |
| **MP04**     | Marking Requirement  
DOD marking required in accordance with MIL-STD-129 (*latest revision, unless otherwise specified by P.O.*) marking (Barcoding, RFID, etc.). |
| **MP08**     | Commercial Packaging Requirement  
Item(s) shall be packaged in accordance with Standard Practice for Commercial Packaging ASTM D3951 (*latest revision, unless otherwise specified by P.O.*) or equivalent. Each line item must be packaged and marked separately.  
**Loose fill materials are prohibited in all packages** |
| **MP12**     | Packaging Requirement of Aluminum and Magnesium Products  
Standard Practices for Packaging/Packing of Aluminum and Magnesium Products shall be in accordance with ASTM B 660 (*latest revision, unless otherwise specified by P.O.*) or equivalent. |
| **MP13**     | Packaging Requirement of Steel Products  
Standard Practices for Packaging, Marking, and Loading Methods for Steel Products shall be in accordance with ASTM A 700 (*latest revision, unless otherwise specified by P.O.*) or equivalent. |
### LM Logistic Services Quality Notes Conversion Chart

<table>
<thead>
<tr>
<th>Quality Note</th>
<th>Description</th>
</tr>
</thead>
</table>
| MP16         | **Packaging Requirement**  
                Item(s) shall be packaged in accordance with MIL-STD-2073 (*latest revision, unless otherwise specified by P.O.*). Standard Practice for Military Packaging. |
| SL01         | **Shelf life Requirement**  
                Shelf life requirements for manufacturing/cure date shall be legible on each container and certificate of conformance with a minimum of 50% useful shelf life remaining upon arrival at any Lockheed Martin facility. |
| SL04         | **Shelf life Requirement**  
                Shelf life requirements for manufacturing/cure date shall be legible on each container and certificate of conformance with a minimum of 90% useful shelf life remaining upon arrival at any Lockheed Martin facility. |
| SL05         | **Shelf life Requirement**  
                Shelf life requirements for Age Controls for Hose Containing Age-Sensitive Elastomeric Materials shall be in accordance with SAE AS1933 (*latest revision*). |
| SL06         | **Shelf life Requirement**  
                Shelf life requirements for tires per MIL-PRF-5041 para on AGE - The tire shall not be more than 36 months old from the date of manufacture to the initial date of delivery. |
| G001         | **Government Source Inspection**  
                Government Source Inspection (GSI) is required prior to shipment from your plant. Upon receipt of this order, promptly notify the Government Representative who normally services your plant so that appropriate planning for Government inspection can be accomplished prior to commencement of work. |