



Supplier Quality Manual

Revision: C

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Foreword

Lee Aerospace Vision

Lee Aerospace is committed to being a leading world-class product and service provider. We will be relentless in the pursuit of growth, diversity and continuous improvement of our company's capabilities, products, and talents; to secure our future, ensure the perfect customer experience, and serve as the employer of choice.

Lee Aerospace Mission

To strive for excellence in customer satisfaction, personal achievement, and profitability fueled by leadership, employee empowerment, accountability, and respect.

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1) Introduction

This Supplier Quality Manual (SQM) is applicable to all suppliers. All suppliers must review and remain knowledgeable of the requirements of this document and are accountable for ensuring implementation, where required, within their corporate organization. Suppliers are also responsible for the flow down of applicable requirements to their sub-tier suppliers.

2) Scope

The SQM outlines the requirements of suppliers and the importance of their contribution in providing conforming aircraft products and services (product safety) in an ethical manner to Lee Aerospace, Incorporated (LAI).

Throughout this manual, the use of the terms “shall” and “must” are Lee Aerospace requirements of the supplier. The use of the terms “should”, “may” and “can” are suggestions and/or recommendations for the supplier.

Acceptance of the terms and conditions by Purchase Order acknowledgement shall be unconditional. No provisions contained herein may be added to, modified, or superseded unless otherwise specifically authorized by the PO. In the event of conflict between the SQM and the Purchase Order, LAI shall be contacted for resolution.

Table I below defines LAI’s supplier classifications and the applicability of specific sections of this document to each supplier class.

Table I: Supplier Classification

	Supplier Classification				
	A	B	C	D	E
	Subcontractor	Manufacturer	Distributor	Laboratory	Tooling
Applicable SCM sections	Fabricates, processes, or tests LAI proprietary products	Designs, fabricates, assembles, or tests their own proprietary products as called out on the LAI drawings or specifications	Resells, as is, new materials or products. (note: this class includes metallic, paint, and adhesive suppliers)	Provides calibration and lab testing services (note: this class does not include non-destructive product testing)	Provides tooling products or services that do not directly affect LAI aircraft or aircraft components
5	X	X	X	X	
6	X	X	X	X	
7	X	X	X		

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3) Definition of Terms

Certificate of Conformance – A statement from a supplier used to attest that the delivered article has been manufactured in accordance with and meets the requirements of the Purchase Order or contract.

Counterfeit Part - An unauthorized copy, imitation, substitute, or modified part (e.g. material, part, or component) which is knowingly misrepresented as a specified genuine part of an original or authorized manufacturer.

NOTE: Examples of a counterfeit part can include, but are not limited to, the false identification of marking or labeling, grade, serial number, date code, documentation, or performance characteristics

Distributor – A supplier that procures parts, materials, or assemblies and sells these products to a customer without affecting product characteristics or conformity.

First Article Inspection – A complete, independent, and documented physical and functional inspection process to verify that prescribed first run of production methods have produced an acceptable item as specified by engineering drawings, planning, purchase order, engineering specifications, and/or other applicable design documents.

Manufacturing Planning (Job Order or Traveler) – The documentation and instructions used to produce/process an article or test in a consistent manner to the requirements of the design data.

Nonconforming Product –A product with at least one characteristic that differs from the applicable requirements (contract requirements, specifications, drawing requirements)

Purchase Order – A commercial document issued by LAI to a supplier indicating the type, quantities, delivery dates and agreed prices for products or services the supplier will provide. Sending a PO to a supplier constitutes a legal binding offer to procure products or services at a contracted price.

Product Safety – The state in which a product is able to perform to its designed or intended purpose without causing unacceptable risk or harm to persons or damage to property.

Ethical Behavior – Actions and practices that are based on principals to conduct business with the mindset of honesty, integrity, accountability, and respect.

4) Acronyms

ASL	Approved Supplier List
BOM	Bill of Materials
C of C	Certificate of Conformance
FAI	First Article Inspection
FAIR	First Article Inspection Report
IAQG	International Aerospace Quality Group
LAI	Lee Aerospace, Incorporated
MRB	Material Review Board
NCR	Nonconformance Report
NOC	Notice of Change
OEM	Original Equipment Manufacturer
OTD	On-Time Delivery

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PO	Purchase Order
QAM	Quality Assurance Manual
QMS	Quality Management System
SCAR	Supplier Corrective Action Response/Request
SCM	Supplier Control Manual

5) Approval and Qualification

In order to set a harmonized Quality Management Standard across its supply base, LAI recommends suppliers comply with ISO 9001:2008, AS9100 standard.

The QMS requirements for each supplier classification are outlined in Table II below.

Table II: Supplier’s QMS Approvals

Supplier’s Quality Management System Approvals (R=required; P=Preferred)	Subcontractor	Manufacturer	Distributor	Laboratory
Quality requirements as defined in LAI <i>Supplier Quality Manual</i>	R	R	R	
Supplier QMS Approval (performed by LAI Supplier Quality)	R	R	R	P
ISO/IEC 17025 Certification				P
ISO9001/AS9100 certification	P	P		
ISO9001/AS9120 certification			P	
Regional Governmental Authority (TC, FAA, EASA) approval		P	P	

All new suppliers shall be evaluated to ensure the supplier’s ability to comply with the requirements of this document. This evaluation can include, but is not limited to:

- A Supplier-Vendor Survey, QF1537-07,
- Audits (desk or on-site) of the Supplier’s Quality Systems and Manufacturing Processes, and/or
- Inspection of the Supplier’s product furnished to LAI

All suppliers of aircraft products (not including tooling) and services must be approved and listed on LAI’s ASL to receive orders and provide LAI goods and/or services. Additional requirements may apply, and exceptions may be considered at the discretion of LAI Quality.

a) Re-Approval

Following initial supplier approval, LAI at any time and at its sole discretion may reevaluate and reassess the status of a supplier. Re-approval will be based on the supplier’s performance which includes, but is not limited to, quality/delivery ratings and SCARs.

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LAI Quality Assurance and/or the FAA may elect to audit a supplier's Quality System or manufacturing processes at any time after initial approval in order to ensure continuing compliance with contractual and quality requirements, investigate any quality problems, verify corrective action activity, or evaluate the effect of any change in facility, process, equipment, or management.

LAI shall be notified of changes in either the supplier's ownership or the location of manufacturing facility within 72 hours. In addition, suppliers shall notify LAI of any changes that may alter the overall effectiveness of the supplier's Quality System. It is the responsibility of the supplier to provide a written statement to LAI of changes. This written statement shall include where applicable:

- current and proposed facility locations/Quality System change,
- proposed part/assembly numbers, specifications, special processes, and tooling,
- a proposed transition timeline with a risk mitigation plan that prevents disruption in the supply and/or support of parts/assemblies,
- any additional information required by LAI to understand business and/or legal impacts.

The notification shall be sent to LAI Procurement within 30 business days prior to changes. The supplier shall be responsible for all impacts resulting from the change.

b) Performance

Supplier performance will be evaluated based on the following criteria:

- On Time Delivery – the percentage of on-time orders.
- Defective Parts Ratio – the percentage of parts/materials that pass inspection.
- Late response to SCARs – the percentage of SCARs not received by the due date.

LAI may, at any time and at its sole discretion, revoke the approval granted to a supplier or place a supplier under surveillance or probation for poor performance. Any change to a supplier's status can be based on, but is not limited to, the following:

- Supplier audits,
- Performance metric evaluation results (quality and delivery ratings),
- Use of unapproved manufacturing processes,
- Extended period of business inactivity,
- Changes in supplier's manufacturing or processing capability,
- Counterfeit parts.

1. Surveillance

For any supplier placed under surveillance, the supplier must implement an LAI approved Corrective Action Plan and provide periodic status updates reporting compliance with the plan. Frequency and scope of supplier audits may be increased at LAI's sole discretion.

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2. Probation

For any supplier placed on probation, source inspection shall be required for the duration of the probation period, along with those specified in the above surveillance section. Any extra costs incurred for source inspection will be the responsibility of the supplier.

3. Inactivation

Suppliers on probation who have not responded, implemented effective corrective action, and addressed all issues to LAI's satisfaction, the supplier may be deactivated. For a supplier that has been deactivated, the following shall apply:

- Supplier shall be removed from LAI's ASL,
- in-progress work at the supplier's facility shall be immediately halted,
- all product in transit to LAI shall be quarantined upon receipt and returned to the supplier, and
- no new business shall be awarded to the supplier

6) Quality System Requirements

Suppliers shall perform adequate Quality planning in order to meet and demonstrate to LAI that suppliers will be able to meet all requirements applicable to the supply of its product or services to LAI.

a) Responsibility, Authority, and Communication

The person responsible for Quality within the supplier's organization should report directly to LAI's senior management. This person shall have authority to ensure maintenance of a Quality system compliant with all applicable requirements.

b) Control of Documents

All documents relating to the Quality system shall be reviewed for adequacy and approved by supplier's authorized personnel prior to issue.

Supplier documentation and data related to products or services shall be controlled. Obsolete documents need to be removed from points of use or otherwise controlled to preclude unintended use.

c) Counterfeit Part Prevention

LAI will not accept an unauthorized copy, imitation, substitute, or modified part (e.g., material, part, or component) from suppliers, which is knowingly is misrepresented as a specified genuine part of an original or authorized manufacturer. This can include, but is not limited to, the false identification of marking or labeling, grade, serial number, date code, documentation, or performance characteristics. .

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d) Shipping Document Requirements

The following documentation must be included with each shipment to LAI in accordance with the PO/contract otherwise the received product is subject to being placed on hold until the required documentation is received, and payment will not be made until the required documentation is received.

	Certificate of Compliance C of C (1)	Certification (2)	First Article Inspection Report (FAI) (3)	Copies of Original Stamped NCR's (4)
Build to Print (Parts & Assemblies)	X		X*	X
Electrical Parts & Assemblies	X		X*	
Raw Materials	X	X**		X
Outside Processing/Services (Includes special processes)	X	X**		X
Shelf Life Items (Paint, Sealants, etc.)	X	X**		
Distributed Parts/ Materials	X		X*	X

* Submitted with first lot only

**When requested by LAI Quality

1. Certificate of Compliance (C of C)

Each shipment shall contain a signed Certificate of Compliance with the delivery documentation. The C of C shall be specific to a line item of a Purchase Order. The requirements for the C of C document are contained in Appendix B.

2. Material and Processing Certification

Certification is only required to be submitted with a part shipment if specified by purchasing (PO) requirements; however suppliers are required to maintain records per Section 6d, Control of Records, traceable to the product shipped to LAI.

3. First Article Inspection Report

LAI has employed a preferred method of submitting FAIRs. The process utilizes an internet-based first article system facilitated by Net Inspect. Requests for Net Inspect access must be submitted to LAI Quality.

4. Non-conformance Report

The supplier shall have a system in place to notify LAI Quality Assurance when any deviation to product is discovered that will impact on-time delivery. Copies of all NCRs shall be included with the shipment of deviated product. No nonconforming product shall be shipped without written authorization from LAI.

e) Control of Records

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Conformity records and QMS records shall be controlled. A procedure must define secure storage, retrieval, retention, and disposition of records. It is the responsibility of the supplier to ensure that sub-tier suppliers control records in accordance with this document.

General records related to the product (including, but not limited to, receiving inspection documents, material certification, processing certification, work orders, inspection reports, process related data, cure charts, nonconformance reports, etc.) shall be retained for a minimum period of ten (10) years from date of shipment per active contract.

Qualification records, FAIRs, manufacturing planning records, and inspection plans shall be maintained for a minimum period of ten (10) years from the last shipment.

Training records related to the manufacturing process shall be retained for a minimum period of no less than two (2) years from date of training.

7) Access

- a) The supplier shall grant the right of access to their facilities and quality related data to LAI, LAI customers, and/or any governmental regulatory agencies.

8) Supplemental Quality Requirements

a) Nonconforming Material or Product

The supplier shall have a documented process for positive control, identification, and segregation of discrepant articles at all times from discovery through disposition verification. Discrepant articles awaiting disposition shall be contained in a designated area with limited access to personnel.

A LAI MRB disposition is required when an article is found to depart from PO requirements and cannot be reworked without affecting fit, form or function. To obtain a LAI MRB disposition, the supplier shall initiate a nonconformance report to LAI Quality to receive a disposition prior to shipping of the product. The supplier may use their own internal documents to identify discrepant articles.

When requesting the use of an article/process containing a discrepancy, the supplier shall determine and submit to LAI the root cause with the appropriate corrective action(s) to prevent reoccurrence by taking actions to establish the cause (with regard to any nonconformities related to human factor as applicable), determine if similar nonconformities exist by reviewing all inventory and work in progress, and actions taken to control/correct it. The supplier may use their own internal documents to identify discrepant articles.

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In the event a condition is discovered that affects previously delivered articles, LAI shall be notified of the condition in a timely manner. This notification shall include:

- part number / name,
- quantity of nonconforming articles,
- units affected,
- PO number and ship dates for parts in question,
- description of discrepancy, including drawings/images,
- investigation of cause / root cause,
- corrective actions – immediate and long term,
- supplier engineering evaluation where applicable.

If nonconforming supplier articles are detected at LAI's facility, a rejection will be generated noting the discrepancy and disposition. If it is determined that the nonconformance is the supplier's responsibility, the articles may be returned at the supplier's expense and corrective action required.

The supplier shall have a system in place to ensure scrapped articles are rendered unusable, i.e. cut into multiple pieces, having holes punched into them, etc., and are disposed of in a timely manner. The activity to scrap shall be overseen by the supplier's Quality department.

b) First Article Inspection (FAI) Report

The supplier will prepare a formal FAI report on each first production detail part, subassembly, assembly and kits. For subassemblies or major assemblies, this includes an FAI for each detail component. The FAI shall be conducted and reported per the requirements of the latest revision of SAE AS9102, unless otherwise specified by LAI. No blanks are permitted in the required fields on the AS9102 forms. If a field is not applicable for a given inspection article, N/A or a similar notation must be used. LAI has Net Inspect and can review FAI's electronically if submitted through Net Inspect and suppliers have been set up as suppliers.

A formal FAI is not required for raw materials, hardware, non-production parts such as ground support equipment, commercial goods, buyer furnished equipment, or when the supplier only performs a special process.

The FAI shall be repeated as a result of any of the following conditions:

- Any changes to the manufacturing process, tooling, inspection, or drawing. However, when the drawing change received from LAI does not modify the product under contract, the FAI amendment shall state: "Drawing change received does not modify the part",
- After a manufacturing interruption of (24) consecutive months, or
- Any transfer of manufacturing operations to a new site or new location within the existing facility, see section 5(a).

If the first production unit does not meet the applicable requirements, then the FAI shall be repeated as necessary until satisfactory results are achieved.

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Final approval is at the discretion of LAI. See Table III below for FAI minimum requirements.

Table III: Minimum FAI Requirements

Product Type	Requirement	AS9102 Form Used
Detail/Assembly/Kit	The actual configuration: drawing(s) and planning document(s) including revision level	1
Assembly / Kit	List of all detail parts, hardware, and raw materials used	1
Assembly	Acceptance of function test procedure results	2
Detail / Assembly	The specific tool and/or fixture numbers used to manufacture	2
Detail / Assembly	Special processes used (specification, type, and class)	2
Detail / Assembly	Required dimensions, tolerances, and actual results (including any general drawing note requirements)	3
Detail / Assembly	All sub-tier supplier C of C's and test reports	Attached
Detail	Raw material alloy, specification, and temper	2
Detail	Raw material traceability documents	Attached
Detail	Raw material hardness and conductivity values (metallic component only)	Attached
Detail	Shelf-life statement	Attached

The FAIR shall be retained as a quality record, at the supplier's facility, and a copy shall be submitted to LAI along with the first lot shipment.

c) Gage and Measuring Equipment Control

All gages and measuring equipment used in the manufacture or inspection of aircraft articles shall be calibrated on a predefined interval, under a system that is in compliance with IEC/ISO 17025, ANSI Z540.1, or equivalent National Institute of Standards and Technology (NIST). All calibrations shall be traceable to a NIST standard.

The supplier shall have a system to ensure the calibrations are performed as scheduled, and shall have a recall system for suspect articles inspected with gages found to be out of calibration.

d) Stamp Control

If utilized, the supplier shall identify authorized signatories for verification, certification and release of products. The supplier shall maintain a procedure for effective control and administration of inspection stamps.

- Inspection stamps shall be designed to be identifiable to the supplier and the supplier's inspector who affixes the stamp
- Non-issued stamps shall be kept secure to prevent unauthorized use

e) Part identification

97000-XX PCD states LAI identification requirements and may be flowed down by PO, drawing, or other LAI engineering. When the identification method is not specifically regulated by drawings, specifications, or other documents, part marking shall be

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accomplished by permanent ink stamping of the parts. Products having an insufficient or unsuitable surface to be individually identified will either be bundled, if possible, or placed in an identified container. An identification tag, with all required information, shall be attached to the bundle or the container.

f) Special Processors

Special Processors must have a system that is compliant to *AS9100 Quality Management System – Requirements for Aviation, Space and Defense Organizations*. Some special processes require that the supplier obtain additional facility qualifications from LAI or LAI's customers.

Any product or service that is considered a special process shall be shipped with documentation that includes the date performed, name and location of all special process suppliers, as well as all special sub-processes that were performed. A special sub-process is defined as a special process that is not called out directly in a purchase order, engineering drawing, or other engineering documents but is referenced within a higher level special process that is called out in a purchase order, engineering drawing, or other engineering documents.

g) Training

The supplier shall establish a method for training, assessing, and documenting the proficiency of personnel performing activities that may affect the quality of the product. Recurrent training shall be conducted as needed for technical skills and special process personnel qualification. Training requirements shall be reviewed to ensure skills are upgraded to follow changes in methods and technology advancements.

9) OEM Subcontracting by LAI

LAI partners with Aerospace Original Equipment Manufacturers (OEMs) on several programs. LAI may subcontract work related to these programs to its supply base. LAI subcontract purchase orders may contain additional OEM-specific quality requirements. These requirements are contained in appendices to the *LAI Supplier Quality Manual* and incorporated into a PO through a corresponding Quality Note.

In some instances, it may be necessary for LAI suppliers to receive training prior to performing work on OEM subcontracts. It is the supplier's responsibility to make the necessary arrangements to receive this training prior to performing any work on a subcontract requiring OEM-provided training.

Some special processes require LAI suppliers to obtain additional facility qualifications from LAI's customers. Where a LAI customer requires additional qualifications or specified processors, this information will be flowed down to the supplier via the LAI purchase order or other suitable communication.

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Appendix A

Requirements for Supplier Certificates of Compliance (C of C)

Each C of C shall contain, at a minimum, the following information:

- a.) Supplier's name & address.
- b.) Purchase Order number / line item.
- c.) Deliverable part number, as assigned by the Purchase Order.
- d.) Quantity delivered.
- e.) Part serial numbers, when applicable.
- f.) Manufacturer's batch (traceability) number, cross-referenced to the quantity.
- g.) Deliverable article's design revision level* (LAI BOM/MFG revision).
- h.) All special processes performed, including designation per specification (Type, Class, etc.), if applicable.
- i.) Process specification revision level. **
- j.) A statement denoting acceptance/certification of the product to the defined LAI engineering requirements.
- k.) Stamp/signature of authorized certifier, and date of certification.

*All article revision levels shall be reported at the latest released revision to which the article conforms at the time of article certification, unless otherwise noted

**All process revision levels shall be reported at the latest revision used by the supplier to process the article

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Appendix B

Quality Notes

****Q1**** The supplier shall retain on file evidence of conformance in English which shall be made available to Lee Aerospace on request. By shipping the product to Lee Aerospace, the supplier confirms and represents that the product meets all applicable requirements.

****Q2**** A statement of conformity is required on each shipment signed by the person responsible for quality control and shall indicate PO number, part number, quantity, and applicable specifications.

****Q3**** Lee Aerospace *Supplier Quality Manual* is applicable to this purchase order. The supplier is responsible for ensuring compliance with the latest revision of the *Supplier Quality Manual*, which can be found on the Lee Aerospace website at www.leeaerospace.com .

****Q4**** Supplier shall ensure that upon delivery to Lee Aerospace all materials have at a minimum 75% of their shelf life remaining.