



SUPPLIER QUALITY MANUAL QUALIFICATION AND EVALUATION

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Revision No	02	Revision Date	12.20.2025	Cancelled Revision	01

REVISION TABLE					
REV. NR.	REV. DATE	SUBJECT	APPROVAL	APP. DATE	SIGNATURE
01	10.25.2024	FIRST RELEASE	HASAN DEMIR GENERAL MANAGER	10.25.2024	
02	12.20.2025	1. FULL TEXT CONTROL, 2. PURCHASE ORDER TERMS UPDATED, 3. SUPPLIER RISK ASSESSMENT TABLE UPDATED, 4. PROHIBITED ACTIONS UPDATED, 5. SUPPLIER QUALIFICATION AUDIT UPDATED, 6. "PENDING SUPPLIER" DEFINITION IS ADDED,	HASAN DEMIR GENERAL MANAGER	12.20.2025	

1. INTRODUCTION

- 1.1. One of the most important quality management legs is the implementation and the aim to establish, maintain, and increase customer satisfaction as well as meet international standards and OEM requirements.
- 1.2. This manual aims to complete the Loran Aerospace Terms and Conditions of Purchase and Supplier Charter, and the manual has been implemented to establish the control of suppliers' processes and products, which have a potential impact on the conformity of products supplied by Loran Aerospace Incorporated (**LORAN**).
- 1.3. The suppliers of LORAN are responsible for their performance in terms of Quality, Cost, Delivery and commit to:
 - 1.3.1. implement the organization and the necessary means,
 - 1.3.2. guarantee the quality of their products and delivery times,
 - 1.3.3. measure and optimize their quality and logistics performance, both internally and externally,
 - 1.3.4. contribute to joint quality and logistics actions with LORAN.

2. PURPOSE

- 2.1. The purpose of this manual is to:
 - 2.1.1. define Loran requirements, complementary to international standards and applicable regulations,
 - 2.1.2. flow down the requirements of Loran's customers,
 - 2.1.3. introduce the process of supplier approval and product/process qualification,
 - 2.1.4. describe methods for monitoring performance throughout the product's life cycle (development and serial).

3. DEFINITIONS AND ACRONYMS

- 3.1. **LORAN:** Loran Aerospace Incorporated
- 3.2. **Supplier (Seller or Vendor or Sub-Contractor):** business organizations that can provide products or services for LORAN.
- 3.3. **Product:** The service or equipment considered or ordered to be purchased by LORAN.
- 3.4. **PO:** Purchase Order
- 3.5. **Supplier Code of Conduct (SCC):** expresses Loran Aerospace's expectations for our suppliers and mirrors our Quality Management System requirements standards.
- 3.6. **FOD:** Foreign Object Damage or Foreign Object Debris
- 3.7. **Mandatory:** Minimum requirements for qualification
- 3.8. **Primary Preference:** Reason for choosing the supplier as a priority
- 3.9. **Project Management Possession Documents:** All types of documents, including traceability, quality control, financial, and CofC, obtained by the supplier while processing a project for LORAN.
- 3.10. **On-Site Acceptance:** The product acceptance process is performed at the supplier's place before dispatching.
- 3.11. **QC:** Quality Control
- 3.12. **The National Institute of Standards and Technology (NIST):** is an agency of the United States Department of Commerce whose mission is to promote American innovation and industrial competitiveness.
- 3.13. **Traceability:** The term is a capability to track and document the history, location, and (if exist) usage of the product or the materials from the manufacturing stage to (if exist) the distributors/suppliers and to the current end-user.
- 3.14. **Certificate of Origin (COO/CofO):** It is an origin country declaration for the supplied product.



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- 3.15. Certificate of Conformity (COC/CofC):** It is also known as a Certificate of Compliance or Certificate of Conformance and is a document that verifies that a product or service meets required standards or specifications. Loran carries out its policy covering the preparation, preservation, and transmission of CoC documents to the customer in accordance with the **AS9163 2022-12 Standard**.
- 3.16. Purchasing Exception:** If the product is not available from another company in the market, or the product is "hard to find", or the customer has a special supplier request for the product, Loran carries out the product order subject to the approval of the top management, except for the supplier being an "approved" supplier. These suppliers are classified as "Conditionally Approved" suppliers for Loran. If traceability is unavailable or the documentation is suspected of being falsified, Loran discontinues efforts to procure the part.
- 3.17. NDT: Nondestructive Test**
- 3.18. DT: Destructive Test**
- 3.19. Configuration** is a documented information that covers the technical and physical specifications of the product. These documented specs are open for the distributors and customers, to avoid any fault or mis-ordering process.
- 3.20. Sweat Effect:** During measurement and packing processes that require continuous measurement, handling, and packing. **The use of light-cotton gloves, depending on the structure of the product, will prevent the effect of sweat that may occur.**
- 3.21. Sensitive Coated Products:** These are products coated with a special process to increase their resistance to external factors such as heat and oil.
- 3.22. SQA:** Supplier Qualification Audit

4. SUPPLIER TYPES

- 4.1. In the scope of LORAN's business capabilities, the Suppliers are classified into 4 Groups:
- 4.1.1. Manufacturer or Distributor,
 - 4.1.2. Supplier Company,
 - 4.1.3. External Laboratory,
 - 4.1.4. Regulatory Institutions,

5. NORMATIVE DOCUMENTS

LORAN uses the following standards with final revisions, to prepare this manual.

- 5.1. **AS9100:** Quality Management Systems - Requirements for Aviation, Space, and Defense Organizations
- 5.2. **AS9120:** Quality Management Systems – Requirements for Aviation, Space, and Defense Distributors
- 5.3. **AS13000:** Problem Solving Requirements for Suppliers
- 5.4. **AS9131:** Aerospace Series - Quality Management Systems - Nonconformity Data Definition and Documentation
- 5.5. **AS6174:** Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel
- 5.6. **AS6832:** Counterfeit Materiel, Assuring Acquisition of Authentic and Conforming Fasteners
- 5.7. **AS9138:** Aerospace Series - Quality Management Systems Statistical Product Acceptance Requirements
- 5.8. **AS9146:** Foreign Object Damage (FOD) Prevention Program - Requirements for Aviation, Space, and Defense Organizations
- 5.9. **AS6174:** Counterfeit Material, Assuring Acquisition of Authentic and Conforming Material
- 5.10. **AS9163:** Aerospace Series - Certification of Conformity Requirements
- 5.11. **AS6416:** Bolts, Screws, Studs, and Nuts, Definitions for Design, Testing and Procurement
- 5.12. **ARP9134:** Supply Chain Risk Management Guideline
- 5.13. **ISO17025:** General requirements for the competence of testing and calibration laboratories
- 5.14. **ISO10002:** Quality management — Customer satisfaction — Guidelines for complaints handling in organizations
- 5.15. **ISO31000:** Risk management — Guidelines
- 5.16. **ISO10007:** Quality Management - Guidelines for Configuration Management
- 5.17. **ASTM D3951:** Standard Practice for Commercial Packaging
- 5.18. **MIL-STD-129:** Military Marking for Shipments and Storage
- 5.19. **MIL-STD-2073:** Standard Practice for Military Packaging
- 5.20. **TB-003:** Counterfeit Parts and Materials Risk Mitigation
- 5.21. **CMB5A:** Configuration Management Requirements for Subcontractors/Vendors



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6. QUALITY MANAGEMENT SYSTEM REQUIREMENTS

	AS9100 REV.D	AS9120 REV.B	ISO9001 – 2015	ISO17025 – 2017 and/or NIST	NADCAP	APPLICABLE TESTS
MANUFACTURER	Mandatory				Primary Preference	NDT – DT Mandatory
SUPPLIER – Distributor		Mandatory				NDT Mandatory
SUPPLIER – Raw Material		Mandatory				NDT Mandatory
SUPPLIER – Heat Treatment	Primary Preference		Mandatory		Primary Preference	NDT – DT Mandatory
SUPPLIER – Coating / Plating	Primary Preference		Mandatory			NDT – DT Mandatory
SUPPLIER – Blasting	Primary Preference		Mandatory			NDT – DT Mandatory
SUPPLIER – Welding	Primary Preference		Mandatory		Primary Preference	NDT – DT Mandatory
EXTERNAL LABORATORY			Primary Preference	Mandatory	Primary Preference	NDT – DT – CALIBRATION Mandatory

6.1. Control of Documents

- 6.1.1. The supplier is responsible for checking the documents in their possession regarding those flowing down on purchase orders and obtaining the necessary standards.
- 6.1.2. The supplier must establish an active document control mechanism in their quality management system to confirm the document's validity and traceability.
- 6.1.3. The supplier should ensure control of documents and data to their suppliers in controlled distribution. Data security is a mandatory obligation for the supplier.
- 6.1.4. The supplier must maintain their project management possession documents and data for a minimum of 10 years period from their product delivery date.
- 6.1.5. **On-Site Acceptance:** Before dispatching the product from the supplier's warehouse, sometimes LORAN may need to approve the products and documents at the supplier's place. LORAN must indicate the on-site acceptance condition on the purchase order document.

6.2. Record Retention Responsibilities

- 6.2.1. Loran requires the following record storage and recall capabilities from all its suppliers.
- 6.2.2. The supplier is responsible for retaining quality records according to the latest requirements for a **minimum of 10 years** of Loran or per contract requirements.
- 6.2.3. All quality records are to be written in English, legible, reproducible, and identifiable to the purchase order.
- 6.2.4. All non-digital quality records (printed medium) shall be documented in ink or other permanent marking.
- 6.2.5. Correction to quality records must be recorded, dated, and signed in ink or other permanent marking method with the original data being legible and retrievable after the change.

6.3. Traceability Documents and Flow Down Chart

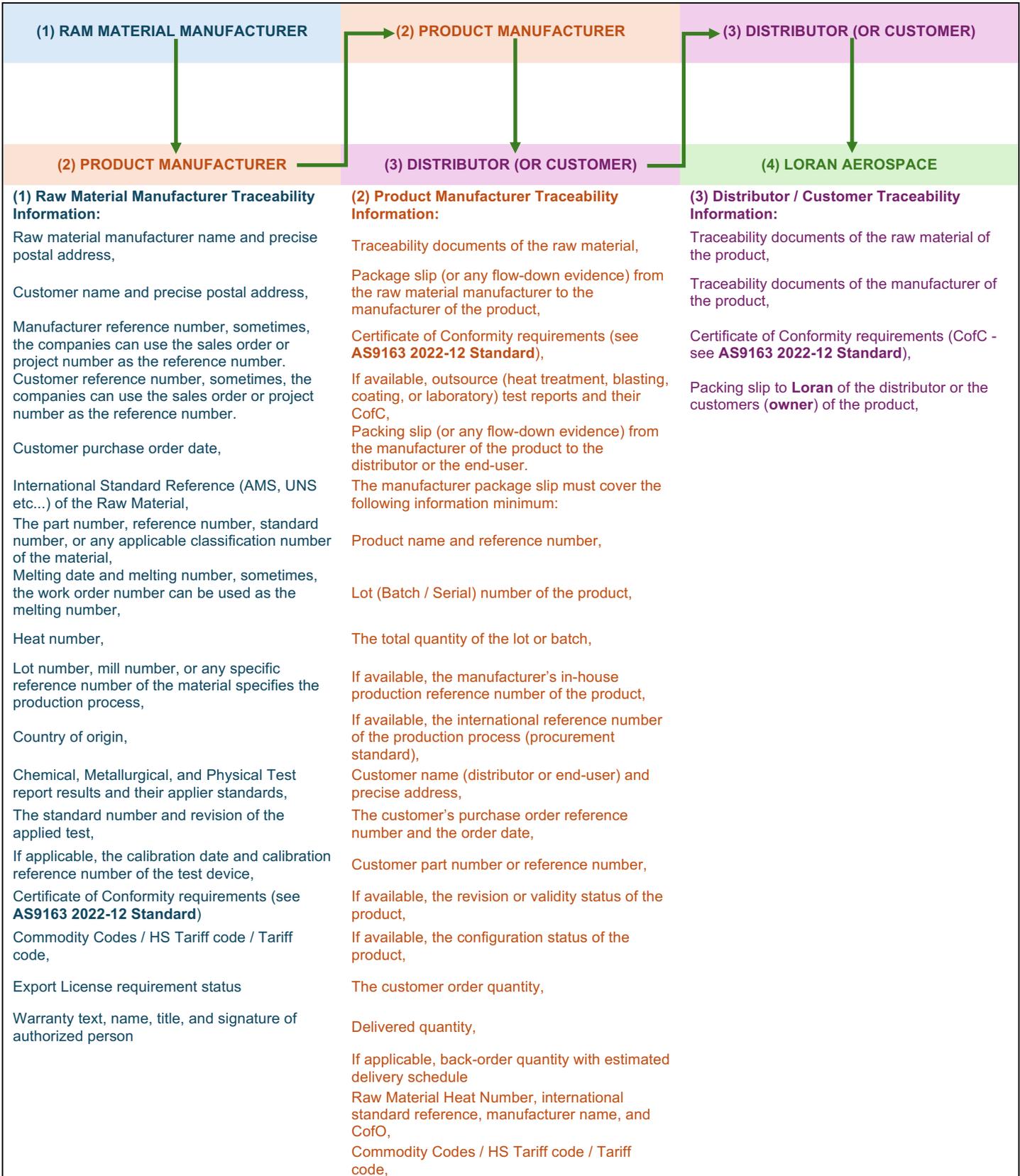
- 6.3.1. Traceability is documentation and flown-down tracking process, and all companies need to supply exact traceability documents with true tracking references.
- 6.3.2. Traceability is documentation and flown-down tracking process, and all companies need to supply exact traceability documents with true tracking references.
- 6.3.3. Traceability documents **must be printed** on the company's letterhead paper and must include a **minimum** of the following information:



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Export License requirement status,

Warranty text, name, title, and signature of authorized person,

6.4. Product Conditions and Traceability Requirement

- 6.4.1. FACTORY NEW (FN):** The product received from Original Equipment Manufacturers (OEM) or Main Manufacturer or Authorized Distributor in original package with CofC and FAA/EASA (if applicable).
- 6.4.2. NEW / UNUSED (New):** For products that do not have shelf-life restrictions, the product must be in its original package and unused condition, even if the production date is old. The supplier can be OEM, authorized distributor or any supplier, and the supplier CofC must be received with the package.
- 6.4.3. NEW SURPLUS (NS):** The product received from other than OEM or authorized distributor, the product should be in the original package, and the vendor CofC must be received with the package.
- 6.4.4. OVERHAULED (OH):** The product has been overhauled by an authorized repair shop; the repair shop must supply a Tear-Down Report, Accident Commitment, and Overhaul Reports with its CofC and FAA/EASA certificate.
- 6.4.5. OBSOLETE PART, SERVICEABLE (SV) and AS-IS (AR):** Loran does not supply products with SV or AR conditions.

7. LABELING AND PACKING

- 7.1.** The label must be made of material that will not be affected by weather conditions and external factors.
- 7.2.** Package labeling must be suitable with IATA regulations. For transport, the mark must be displayed on the external surface of the outer packaging on a background of a contrasting color and must be clearly visible and legible.
- 7.3. Label:** The product descriptive labels must include at least the following information:

7.3.1. Product Information Section:

- ✓ Product Name,
- ✓ Manufacturer Part Number,
- ✓ Customer Part Number,
- ✓ Manufacturer Product Reference Number (if any),
- ✓ Lot/Batch/Serial Number and Quantity,
- ✓ Manufacturer CAGE Code,
- ✓ Product Origin Information,
- ✓ Raw material (standard and heating number) detail,
- ✓ Heat treatment, coating, welding, etc.,
- ✓ Date of manufacturing,
- ✓ Packaging Date,
- ✓ The product quantity in the Package,
- ✓ Shelf-life information (for shelf-life limited products),
- ✓ Product condition (for only Overhauled, Serviceable, As Is)

7.3.2. Customer Information Section:

- ✓ Loran Aerospace full name and address,
- ✓ Loran purchase order reference number,
- ✓ Loran Order Quantity,
- ✓ Delivery Quantity,
- ✓ Back-order amount (if any),
- ✓ Delivery Date

- 7.4. Packaging:** The main packaging requirements are classified and must comply with **ASTM-D3951**. If applicable, the packing requirements must be suitable for **MIL-STD-129-R 2023** and **MIL-STD-2073-1**.

- 7.4.1. Thread and Shank Protection:** Unless otherwise specified by the required packaging requirement, all externally threaded fasteners **3/8" (76.2mm)** diameter and above shall have the full length of the threads and shank protected from handling damage by covering these areas with plastic sleeves.
- 7.4.2.** The sleeves shall be appropriately sized so as not to fall off during normal handling,
- 7.4.3.** Other alternative methods of protection can be used, such as covering the entire fastener with protective webbing or protecting the fasteners from touching each other by packaging the fasteners using the vacuum packaging method,

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- 7.4.4. External threads, splines and close tolerance surfaces** shall be provided additional protection by means of individual ferrules or additional wrapping.
- 7.4.5. Warning Labels:** Depending upon the content, boxes must identify with instructions such as: "Fragile Handle with Care", "Delicate Unit", "This Side Up", up arrows, "Center of Balance", "Keep Dry", "Do not Use Forklift", Do Not Stack", "Open This Side", "Do not open This Side", "Glass-Fragile", etc....
- 7.4.6. Corrosion Preventive:** Packaging must prevent damage such as corrosion, mildew, scratching, denting, and salt contamination of part. The supplier is responsible for selecting packaging materials. Materials shall be chemically compatible with transport material and the mode of transport used (maritime, air or road).
- 7.4.7. Coated Products:** The supplier is responsible for packaging the products according to the coating type. Appropriate packaging equipment will be used to ensure that the products remain healthy and undamaged on the shelf for a long time, depending on the coating type.
- 7.4.8. Polished, Lubricated, and Sensitive Coated Products:** Personnel shall wear gloves made of sufficient material for handling, such as cotton gloves, fine-grained leather gloves, or gloves made of any other soft and light material, to prevent scratches, oxidation (tarnishing), and color tone change.
- 7.4.8.1.** The individual responsible for handling should not be wearing objects such as watches, rings, bracelets or other objects that may harm the plating surfaces.
- 7.4.8.2.** Components such as skins and transparencies with sharp edges must be wrapped in soft foam to prevent chipping during transit.
- 7.4.8.3.** Unless otherwise specified in the purchase order, all parts shall be packed so that they cannot move when carried out in boxes. It is preferred to design special boxes and inserts so movement is restricted for the parts.
- 7.4.8.4.** The polished, lubricated, and sensitive coating products shall not be stacked on top of irregularly shaped or sharp-edged parts or parts on top of skins.
- 7.5. Foreign Object Damage (FOD)**
- 7.5.1.** Another important point for Loran while managing the product acceptance process is the nonconformities arising from "Foreign Object Damage (FOD)." Loran bases the FOD Requirements on the criteria described in **AS9146 2017-04**.
- 7.5.2.** The primary preference for LORAN is that the supplier has active and applicable FOD management.
- 7.5.3.** Loran considers the following situations as non-conformance caused by FOD:
- ✓ package not fully closed,
 - ✓ the presence of any foreign object other than the product in the packaging,
 - ✓ the packaged product is moist,
 - ✓ the packaged product is rusty,
 - ✓ the packaged product is broken or deformed,
 - ✓ unlabeled packaged products,
 - ✓ products with illegible or torn labels,
- 7.5.4.** Dust, sweat, and handprint preventing equipment must be used in the packaging of the products, and the supplier's packaging area must be structured accordingly.
- 7.5.5.** For handling, personnel shall wear gloves, such as cotton gloves, fine-grained leather gloves, or gloves made of any other soft and light material, to prevent scratches, oxidation (tarnishing), and color tone change.

8. CHEMICAL PRODUCTS

The supplier must ensure that it provides at least the following:

- 8.1. FOR SHELF-LIFE AND AGE-CONTROLLED MATERIALS, THE SUPPLIER SHALL ENSURE THAT AT LEAST 75% OF THE MATERIAL LIFE IS REMAINING AT THE TIME OF DELIVERY, THIS REQUIREMENT MAY BE WAIVED BY LORAN MANAGEMENT.**
- 8.1.1.** Unless otherwise specified, LORAN accepts IATA regulations for the products that are classified as Dangerous Goods. All of LORAN's supplier companies must implement the IATA regulations for all types of HAZ-MAT classified products. Codification of the product and package is under the supplier's responsibility. (for more details about the codification, please visit the IATA website - <https://www.iata.org/en/publications/directories/code-search/>)
- 8.1.2.** The packaging must be of good quality, strong enough to withstand the shocks and loadings normally encountered during transport, including trans-shipment between transport units and between transport units and warehouses, as well as any removal from a pallet or overpack for subsequent manual or mechanical handling.
- 8.1.3.** Packaging must be constructed and closed so as to prevent any loss of contents that might be caused under normal conditions of transport, by vibration, or by changes in temperature, humidity or pressure.

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- 8.1.4.** The packaging must consist of **three components**:
- 8.1.4.1. Primary Receptacle(s):** Primary receptacles must be packed in secondary packaging in such a way that, under normal conditions of transport, they cannot break, be punctured, or leak their contents into the secondary packaging.
- 8.1.4.2. Secondary Packaging:** Secondary packaging must be secured in outer packaging with suitable cushioning material. Any leakage of the contents must not compromise the integrity of the cushioning material or of the outer packaging.
- 8.1.4.3. Rigid outer packaging**
- 8.1.5. The packing types** of the liquid and solid products are to be similar to the regulations published by IATA. (please visit IATA website - <https://www.iata.org/contentassets/b08040a138dc4442a4f066e6fb99fe2a/dgr-64-en-pi650.pdf>)
- 8.1.6.** The item list of the shipment includes An **Itemized List** of contents must be enclosed between the secondary packaging and the outer packaging.
- 8.1.7.** At least one surface of the outer packaging must have a minimum dimension of 100mm x 100mm (3.93701" x 3.93701").
- 8.1.8.** The **completed package** must be capable of successfully passing the drop test described in 6.5.4.4 as specified in 6.5.4.2 except that the height of the drop must not be less than 1.2 m. Following the appropriate drop sequence, there must be no leakage from the primary receptacle(s) which must remain protected by absorbent material, when required, in the secondary packaging.
- 8.1.9. Package labeling and marking** must be suitable with IATA regulations. For transport, the mark must be displayed on the external surface of the outer packaging on a background of a contrasting colour and must be clearly visible and legible.

9. CONFIGURATION MANAGEMENT

- 9.1.** Loran carries out configuration management according to the **ISO10007**. At the same time, Loran also implements the following technical guidelines when determining its configuration policy:
- 9.1.1.** "Piece Parts" Requirements are clarified in the SAE technical report of the "**CMB5** Configuration Management Requirements for Subcontractors/Vendors" of when determining its configuration policy.
- 9.1.2. SCMH 7.5.3** Configuration Management Guidelines
- 9.2.** The supplier is required to have a configuration management system that provides the internal and external documents and revision levels applicable to a particular purchase order. The configuration management applied by the supplier must be suitable to at least ISO 10007-2017 standard.
- 9.3.** Unless specified in the manufacturer's technical documentation or unless specifically stated in the LORAN 'purchase order, the supplier's responsibility is to supply the latest version of the product manufactured by the manufacturer, depending on the product's descriptive reference information.

10. NONCONFORMITY CLAIMS

- 10.1.** With regards to the nonconformity claims, Loran accepts the requirements texted in the "**AS9131**" Standard.
- 10.2.** Any nonconforming materials, parts, assemblies, subassemblies, systems, subsystems or services shall be documented and reported to Loran within 24 hours.
- 10.3.** No deviation will be considered approved or be allowed to ship to Loran without written confirmation from Loran.
- 10.4.** All nonconforming materials, parts, assemblies, systems, subsystems, or services shipped to Loran shall be clearly identified as such.
- 10.5.** Unless otherwise specified in the contract with the manufacturer, the below-specified nonconformity procedure may be applied before the product dispatch approval step.
- 10.6.** The manufacturer must fix the non-conformance issue in a maximum of 2 weeks, if the manufacturer can not provide enough corrections on the products in this period, Loran will keep the order cancellation right. If the manufacturer needs more than 2 weeks to provide enough corrections, the manufacturer must need Loran's approval on this correction.

11. PROHIBITED PRACTICES

- 11.1.** Material substitution by Supplier **is forbidden** for all materials, parts, assemblies, subassemblies, systems, subsystems, or services supplied to Loran.
- 11.2. Scrap:** The Supplier shall return any furnished materials, parts, assemblies, subassemblies, systems, subsystems or services that the supplier has dispositioned as scrap to Loran. Loran shall determine whether the proper disposition will be scrapped.
- 11.3. Repair:** The supplier shall not repair a product without Loran's prior written approval.

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- 11.4. Rework:** The supplier shall not perform work outside the specific specification limits.
- 11.5. Re-Sell of Rejected Items:** The supplier shall clearly identify the products rejected by LORAN or any customer, and the rejected products are strongly prohibited from reselling in the market.
- 11.6. Conflict Minerals:** The supplier must comply with the requirements of the **Dodd-Frank Act** on Conflict Minerals (for more details, please visit: <https://www.sec.gov/newsroom/press-releases/2012-2012-163-related-materials> or https://ec.europa.eu/commission/presscorner/detail/fr/memo_14_157). If a conflict mineral is used in the product, and if the supplier detects this situation before or after product delivery, Loran must be notified within a maximum of 60 days after this determination.
- 11.7. Foreign Object Debris or Foreign Object Damage (FOD):** The Supplier shall have a fully implemented FOD Prevention Program that provides for the Detection, Removal, and Reporting of Foreign Object Debris. The procedure shall include provisions for customer notification, internal audits and training of personnel and will contain all necessary requirements of **AS9146** as determined by the supplier's Quality Assurance and Engineering functions.
- 11.8. Working Conditions and Human Rights:** The seller cannot engage in practices that violate human rights and legal regulations under any circumstances. Loran reserves the right to cancel all active orders without any payment in case of any violation. The seller agrees and confirms that any material violation of law relating to basic working conditions and human rights, including laws regarding slavery and human trafficking, applicable to the seller's performance under a contract may be considered a material breach of contract. Loran may elect to cancel any open orders with the seller at no cost to Loran.
- 11.9. Russian Material Exclusion:** All material with a melt source within Russia is prohibited from being used to manufacture products procured for Loran. If Russian material is to be used, written authorization must be obtained from the Loran purchasing representative prior to manufacturing/shipping products to Loran.
- 11.10. Alternative Product:** In case of alternative product supply, the supplier must supply a full usability confirmation between both products, which is guaranteed by the OEM or main manufacturer for the alternative product.
- 11.11. PROHIBITED UNDER ALL CIRCUMSTANCES**
 - 11.11.1. Counterfeit products,
 - 11.11.2. Forged documents,
 - 11.11.3. Making unauthorized corrections, alterations, deletions, or any other revisions to traceability documents,
 - 11.11.4. Using the same manufacturer's documents through different manufacturers in partial product shipments,
 - 11.11.5. Sourcing products from China, India, or any country outside of DFAR-NATO,

12. SUPPLIER APPROVAL AND QUALIFICATION

12.1. Supplier Status

Loran divides its suppliers into **four main classes**:

- 12.1.1. Approved Supplier:** Suppliers with a score depending on on-time delivery and product quality, with a minimum of 70 or a maximum of 3 product rejections within a year.
- 12.1.2. Conditionally Approved Supplier:** The suppliers who can supply the products hard-to-find or the suppliers who is specially requested by the customer and is not listed in the Loran supplier list, or the suppliers who are a new supplier for Loran. The score of the conditionally approved supplier is between 50 and 69.
- 12.1.3. Canceled Supplier:** Suppliers whose scores are below 50. The canceled supplier term covers all companies that provide counterfeit products and or forge traceability documents and or cannot provide adequate technical support and warranty (**see 11.11**).
- 12.1.4. Pending Supplier:** The supplier will remain in "Pending Supplier" status under the following conditions:
 - 12.1.4.1. Depends on the Supplier Qualification Audit (SQA) result;** if the supplier has a non-compliant status for the question(s) marked "**High**" Risk (Important) Status. The supplier will remain in "Pending Status" during this period to address the non-compliance.
 - 12.1.4.2. Prohibited Actions;** If the supplier is reported for a prohibited action during a project fulfillment, the supplier will be placed in "Pending Status" during this period to obtain green clarification from Loran (or from the client, end user, or regulatory authority).

12.2. Updating Supplier Status

- 12.2.1.** The supplier status is revised based on regular **Supplier Qualification Audit (SQA) results** or in response to the **following major events**. In these cases, the Purchasing Department of LORAN notifies the supplier, indicating the reason(s) for the change in approval status.
 - 12.2.1.1.** Quality performance is insufficient in a recurrent manner,
 - 12.2.1.2.** Findings noted during the SQA without associated corrective actions,
 - 12.2.1.3.** Delivery performance is inadequate in a recurrent manner,



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- 12.2.1.4. Recurrent failure of the supplier to respond correctly to complaints,
- 12.2.1.5. Third-party certification not achieved or not maintained,
- 12.2.1.6. Information from Customers or Regulatory authorities about quality-related risks.
- 12.2.2. **Supplier Qualification Audit (SQA)**
- 12.2.2.1. According to the Loran QMS, one of the most important quality management legs is to establish, maintain, and increase customer satisfaction, as well as to meet AS9100, AS9120, and OEM requirements.
- 12.2.2.2. The Loran **Supplier Qualification Audit (SQA)** aims to evaluate suppliers who are doing business with Loran or want to establish business relations with Loran, in accordance with the Loran QMS.
- 12.2.2.3. According to the Loran QMS, Loran conducts SQA for actual and potential suppliers **annually**, unless there is a nonconformity claim against the supplier.
- 12.2.2.4. The SQA results are discussed at the **Management Review Meeting**, and evaluations of SQA results are conducted for both new and existing suppliers.
- 12.2.2.5. Supplier performance reviews will be conducted at the top management level, and supplier performance will be discussed at the management review meeting.
- 12.2.2.6. **Actions for the Non-Compliant Result(s):**
- 12.2.2.6.1. **Questions Marked "Low"**: No action required.
- 12.2.2.6.2. **Questions Marked "Medium"**: Supplier is notified on this subject, and a maximum of 120 days is required to fix the non-compliant status.
- 12.2.2.6.3. **Questions Marked "High"**: This is a major non-compliant status; the supplier is notified of this issue to resolve it within a maximum of 30 days. The supplier will be hold in "Pending" status during this process.
- 12.3. **Supplier Score**
- 12.3.1. Loran carries out all purchasing processes through the ERP system. In this context, there is a Risk Assessment section for both suppliers and products. If necessary, risk factors for the supplier or product are stated in these fields.
- 12.3.2. The purchasing department evaluates suppliers before purchasing a product or service to determine their ability to meet the LORAN's requirements. The main criterion of this evaluation process is the supplier's historical success for LORAN projects.
- 12.3.3. LORAN is used the criteria are described in the **SAE ARP9134** document while supplier qualification evaluation performing.
- 12.3.4. While conducting supplier qualification evaluation by LORAN, it also published the Supplier Code of Conduct document (see **#683494 - Supplier Code of Conduct**) for these companies. In this document, LORAN determined the general rules that its suppliers must comply with and requested that these rules be implemented.
- 12.3.5. LORAN monitors its suppliers on a project basis, according to the criteria specified in the **Supplier Risk Assessment Table**, and scores them based on the main criteria.

SUPPLIER RISK ASSESSMENT TABLE AND SCORING						PROJECT SCORE FOR LORAN	
RISK CRITERIA			PROJECT SCORE FOR THE SUPPLIER		SCORE FOR LORAN		
Criteria	Description	Criteria Class	Scoring (Success)	Scoring (Failure)	Scoring (Success)	Scoring (Failure)	
PRODUCT QUALITY	Capability to deliver products and/or services to the customers quality requirements.	MAIN CRITERIA	100	-10	100	-10	
TRACEABILITY AND CUSTOMER SATISFACTION	Documentation from the manufacturer to the final end-user, includes test reports and CofC documents for the product.	MAIN CRITERIA	100	-10	100	-10	
ON-TIME DELIVERY	Capability to deliver products and/or services to the customers scheduled requirement.	MAIN CRITERIA	100	-1 (per day)	100	-1 (per day)	
PROHIBITED ACTIONS	Sections 11.11 and its sub-sections	MAIN CRITERIA	CANCELLED SUPPLIER RECORD IN "COMPANY RECORDS"				
Quality Management System	AS9100 Rev.D, AS9120 Rev.B, ISO 9001:2018, ISO-EN 17025, NADCAP etc...	Criterion that provides priority but is not mandatory	Selection Criteria	Not Applicable	Not Applicable	Not Applicable	
Technical Support Capabilities and	If requirements are not completely clear, or where special assistance is needed,	Criterion that provides priority	Selection Criteria	Not Applicable	Not Applicable	Not Applicable	



SUPPLIER QUALITY MANUAL

QUALIFICATION AND EVALUATION

Document No	9043642	First Release Date	10.25.2024	<i>Does Not Contain ITAR Controlled Information</i>	
Revision No	02	Revision Date	12.20.2025	Cancelled Revision	01

Timely Communication	The customer may need additional information and, if required, the supplier must provide technical personnel to clear all issues. Constantly evolving and regularly updated specifications and standards are applied in the aviation industry. All companies must always be open to and encouraging training in these criteria.	but is not mandatory			
Training Capabilities and Continuous Improvement		Criterion that provides priority but is not mandatory	Selection Criteria	Not Applicable	Not Applicable Not Applicable
Manufacturing Capability and Capacity	Capability to provide manufacturing services in accordance with the contract requirements	Criterion that provides priority but is not mandatory	Selection Criteria	Not Applicable	Not Applicable Not Applicable
Design Capability and Capacity	Capability to provide design services in accordance with the contract requirements	Criterion that provides priority but is not mandatory	Selection Criteria	Not Applicable	Not Applicable Not Applicable
Geographical, Political & Ethical	Capability to manage social, geographical, political, economic and ethical factors which may affect the project / program.	Criterion that provides priority but is not mandatory	Not Applicable	Not Applicable	Not Applicable Not Applicable
Environment & Safety	Capability to manage environmental, health and safety factors which may affect the project / program.	Factors that may be considered but cannot be directly controlled due to geographical distance.	Not Applicable	Not Applicable	Not Applicable Not Applicable
Work Environment	Capability to manage work environment factors such as temperature, humidity, lighting, cleanliness, protection from electrostatic discharge. etc. according to JISQ; EN/AS 9100:2001 that may affect the conformity of the product.	Factors that may be considered but cannot be directly controlled due to geographical distance.	Not Applicable	Not Applicable	Not Applicable Not Applicable
Sub-tier Chain Control	Capability to manage and control all sub-tier suppliers in the supply chain	Factors that may be considered but cannot be directly controlled due to geographical distance.	Not Applicable	Not Applicable	Not Applicable Not Applicable
Human Resources	Human resources factors which affect the quality and confidence of the customer	Factors that may be considered but cannot be directly controlled due to geographical distance.	Not Applicable	Not Applicable	Not Applicable Not Applicable