

Mountain Aircraft Services, Inc.

SQR-1

08/20/2021

This revision supersedes all previous releases

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1.0 Purpose

This document establishes the procurement quality requirements (Q Clauses), that should be incorporated into the Procurement Document and which should govern performance of the Seller issued the Procurement Document. The elements of this manual supplements those requirements levied by Mountain Aircraft Services, INC. within the Terms and Conditions (T&Cs).

2.0 Definitions

- A. Buyer: Mountain Aircraft Services, INC.
Buyer or Subcontract Administrator that has been issued delegation of procurement authority to make commitments for the procurement of material and services. The term 'Buyer' throughout this document may be interchanged with the term 'Subcontract Administrator'.
- B. Seller: The legal entity that is providing products and/or services and has entered into a contractual relationship for providing products and/or services to Mountain Aircraft Services, INC. through a Procurement Document.
- C. Procurement Document: The Purchase Order or Subcontract between the Buyer and Seller.
- D. Item: The product or service as specified in the Procurement Document.
- E. Rework: A documented and approved process that brings nonconforming item back into conformance with defined specifications, standards or requirements.
- F. Repair: An operation performed to fix and return a non-conforming product to a condition that meets form, fit, and function but not into full compliance with the original requirements.
- G. Latent Defect: A flaw or other imperfection in an item that does not become evident or active until the item is used.
- H. Commercial item: Any item, other than real property, that is of a type customarily used by the general public or by non-governmental entities for purposes other than governmental purposes, and has been sold, leased, or licensed to the general public; or, Has been offered for sale, lease, or license to the general public.
- I. Commercial Off the Shelf (COTS) Item: Any item of supply (including construction material) that is a commercial item (as defined in the paragraph above) existing in substantial quantities in the commercial marketplace, and that is offered for sale for governmental purposes without modification and under the same requirements, specifications, terms and conditions, and standards in which it is sold in the commercial marketplace. This excludes bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.
- J. Independent Distributors of Electronics Association (IDEA): A non-profit trade association representing Independent Distributors that have formally committed to adhere to prescribed quality and ethical standards. The stated purpose of IDEA is to

promote the independent distribution industry through media advocacy; to improve the quality of products and services through a quality certification program, educational seminars and conferences; and to promote the study, development, and implementation of techniques and methods to improve the business of Independent Distributors.

K. Government-Industry Data Exchange Program (GIDEP): A cooperative activity between the U.S. Government, the Canadian Government, and Industry participants seeking to reduce or eliminate expenditures of resources by sharing technical information essential during research, design, development, production and operational phases of the life cycle of systems, facilities and equipment.

3.0 Standard Quality Requirements

This section of the SQAR Manual applies to all procurements. Individual SQAR or Q-Clause are assigned as necessary and are in addition to the requirements of this section. Unless otherwise noted, SQ01 shall be applicable for all procurements.

3.1 Supplier's Responsibility for Conformance

Mountain Aircraft Services, INC. and its customers expect our suppliers to deliver material that is 100% compliant with all the Procurement Document Requirements. If a Supplier has any changes to drawings, or specifications noted on the drawing, processing, materials, or contractual requirements of the Procurement Document, a Request for Change/Information (RC/I), Form P0-F030, shall be initiated by the supplier to request assistance. The RC/I process and its requirements are documented in SQ01.T.

3.2 Specialty Metals

Mountain Aircraft Services, INC. requires products containing specialty metals to be compliant with DFARS 252.225-7009, "Restriction on Acquisition of Certain Articles Containing Specialty Metals". SQ44 shall be applicable for all products containing specialty metals.

3.3 Counterfeit Prevention

The requirements of SQ43 shall be met by all suppliers of Hardware, Electronic, Electro-Mechanical and Electrical (EEE) Parts, Components, Assemblies and Systems. The requirements of SQ09 shall be met by all suppliers of non-electrical parts, including but not limited to: fasteners, nuts, washers, springs, o-rings, inserts, and pins.

3.4 Exception to Rejections

In the event a supplier does not accept the responsibility for a discrepant condition, the supplier shall initiate a letter of exception to their buyer. The letter shall make full reference to applicable documents and be specific in defining the area of exception.

3.5 Supplier Sub-tier Control

Supplier shall ensure the following:

- ☉ All items procured from its subcontractors conform to all requirements of the Mountain Aircraft Services, INC. purchase order
- ☉ All provisions of this document that have been incorporated into the Procurement Document are flowed to its subcontractors, including copies of the latest revision process specifications

Note: Delegated Suppliers are not exempt from audits and on-site verification of corrective action. Material currently undergoing corrective action investigation processing up to and including verification of corrective action shall not be shipped without the authorization of Mountain Aircraft Services, INC. Supplier Assurance.

SQ01 General Quality Assurance Requirements

Guidance: A through T shall apply when SQ01 is required. Exclusions will be noted in the AQRPS Project table or on the Purchase Order.

A. PROHIBITED PRACTICES

1. Unauthorized Repairs: Seller shall not repair any damaged item, or any item found to be faulty during manufacturing or that fails to meet Buyer specification/drawing requirements, without Buyer's written approval, except when the nonconformance is minor and Material Review Board (MRB) authorization has been granted by the End User. Seller is not authorized to perform MRB activities on non-conforming materials without Buyer authorization
2. Change in Approval, Drawing, Processes, Materials, or Procedures: Seller shall not change any drawing, process, material (including sub-tier supplier parts), or procedure without prior Buyer's written approval, if such drawing, process, material, or procedure was used to qualify items or which was used by Seller to become a qualified source.

NOTE: The following sub-articles do not apply to a Supplier that has design authority over their own products.

3. Seller shall notify buyer of item latent defects found by seller or sub-tier suppliers. 4. Re-submittal of Rejected Items: Any item rejected by Buyer and subsequently resubmitted to Buyer shall be clearly identified as a resubmitted item, indicating the Procurement Document number and Buyer's reject document number in Seller's Certificate of Conformance.
5. Notification of Facility Change: Seller shall not use any production, manufacturing, and/or processing facilities that differ from facilities previously approved by Buyer without first notifying Buyer and affording Buyer an opportunity to examine and approve such facilities for compliance with procurement quality requirements. Seller shall not relocate any production, manufacturing, and/or processing facilities previously approved by Buyer without first notifying Buyer and affording Buyer an opportunity to examine and approve such facilities for compliance with procurement quality requirements.
6. Changing of Test Facility: If a specific test facility was previously approved by Buyer as provided for in the Procurement Document, the Seller shall not change a test facility or use another test facility to meet specification/drawing requirements without prior Buyer's written approval.
7. Change in Quality Management System status: Seller shall not make a significant change in QMS certification status without notifying the Buyer, such as approval of QMS to ISO 9001, AS9100, AS 9110, AS9120, or FAA Repair Station requirements, major findings that jeopardize supplier's certification status, loss of certification, or supplier's willful decision to opt out of QMS certification to one of the standards noted above.

8. Change of Management/Owner: Seller shall notify Buyer when a significant change in management or ownership has occurred.

B. RESPONSIBILITY FOR CONFORMANCE

The supplier shall, at minimum, conform to all Procurement Document, flow down, audit and quality requirements.

1. Neither surveillance, inspection, and/or test made by Buyer or its representatives or US Government representatives at either Seller's or Buyer's facility, or Seller's compliance with all applicable procurement quality requirements, shall relieve Seller of the responsibility to furnish an item that conforms to the requirements of the procurement document.

2. Seller shall control sub-tier supplier procurements to the extent necessary to ensure quality requirements specified in the procurement document are satisfied. 3. Seller shall ensure all applicable provisions of this document are flowed to its subcontractors including copies of the latest revision process specifications.

4. Seller shall notify Buyer of any proposed change in design, fabrication method, or process, and obtain approval from Buyer before making the change.

- a. Articles, which have incorporated approved changes, shall be appropriately identified.

5. Seller shall notify buyer of item latent defects found by seller or sub-tier suppliers.

6. When required, Quality requirements shall, at minimum, include the following:

- a. Sub-tier supplier pre-award survey/evaluations
- b. Periodic auditing of supplier
- c. Implementing a sub-tier supplier rating system
- d. Ensuring adequate review of procurement documentation prior to procurements
- e. Controlling procurement of critical items for Seller's product
- f. Inspection of procured items to documented procedures
- g. Control of non-conforming material, including corrective action

7. Product nonconformance's shall be documented in accordance with paragraph SQ01-H, Nonconforming Materials.

C. BUYER SURVEY, SURVEILLANCE, AUDITS AND INSPECTION

1. Buyer or Buyer's representative, as well as their customers and regulatory authorities shall have the right of access to conduct surveys, audits, and surveillance of Seller facilities involved in the Procurement Document and applicable records, and those of Seller's sub-tier suppliers with prior coordination with Seller. The surveys and audits will be used to determine capability to

comply, and to verify continuing compliance, with the requirements of the Procurement Document and applicable state or federal regulations.

2. Buyer or Buyer's representative shall have the right to perform an inspection at Seller's facilities and those of Seller's sub-tier supplier with prior coordination with Seller, during the period of manufacturing and inspection prior to shipment.
3. Final inspection and acceptance shall be performed at the Buyer's facility, unless otherwise specified in the Procurement Document.

D. FAILURE REPORTING

When an electronic item is returned to a seller for troubleshoot and/or repair, the seller shall provide a document that outlines what actions were taken to return the item to a serviceable condition; minimum information requirements shall include the following:

1. Procurement Document number
2. Part number
3. Discrepancy from customer
4. Fault found
5. Actions taken to repair discrepancy
6. Test procedure used to verify fault has been eliminated
7. Failure Reports shall be signed by Seller's duly authorized representative.

E. SUPPLIER CORRECTIVE ACTION REQUEST

1. When a quality problem exists with Seller's items, Seller shall respond to and complete a Supplier Corrective Action Request.
2. Responses to Supplier Corrective Action Requests shall be timely and shall include the following information:
 - a. Root cause of the deficiency
 - b. Action taken to correct the specific deficiency
 - c. Action taken to prevent recurrence of the deficiency
 - d. Action taken to determine if other products are affected
 - e. Effectivity date for implementation of identified corrective and preventive actions
 - f. Verification that the corrective and preventive actions are effective

F. U.S. GOVERNMENT SOURCE INSPECTION

For procurements made under U.S. Government contracts, the US. Government shall have the right to inspect any and all of the work contracted through the Procurement Document, at Seller's facilities or at sub-tier supplier's facilities. Seller quality

control or inspection system and manufacturing processes are subject to review, verification, and analysis by authorized U.S. Government representatives.

G. MEASURING AND TEST EQUIPMENT

1. When measuring and testing an item, the Seller shall be responsible for validating the accuracy and stability of tools, gages, and test equipment used to demonstrate that an item conforms to the requirements specified in the Procurement Document.
2. Documented schedules shall be maintained for periodic calibration of measurement and test equipment to adequate standards.
3. Objective evidence of calibrations shall be recorded and made available for Buyer's review.

H. NONCONFORMING MATERIALS

Nonconforming material must be identified and documented, segregated or bonded, pending disposition when found, to prevent its unintended release or use, and evaluated to determine the actions necessary to contain its effect on other processes or products.

1. Seller shall provide and maintain a corrective action and disposition program for non-conforming materials.
2. Seller shall provide for control, segregation, and identification of non-conforming materials detected at Seller's facilities.
3. Seller shall not have MRB disposition authority without Buyer's written authorization.
4. No Repair shall be allowed outside of the specific specification limits unless prior written approval is obtained by Seller from Buyer.
5. No Rework shall be allowed unless prior written approval is obtained by Seller from Buyer.

I. INSPECTION RECORDS

1. Seller shall maintain records of all inspections and tests performed on any item delivered to the Buyer's facility, or drop shipped to another location as directed by the procurement document.
2. Records shall identify any non-conformance and shall be made available for Buyer's review.
3. Seller and subcontractors shall ensure records are available for review by Customers and Regulatory Authorities in accordance with contract or regulatory requirements.

J. SAMPLE INSPECTION

1. Seller, prior to implementation of a sampling plan, shall provide a copy of said plan to the Buyer. Buyer reserves the right to reject any plan which does not conform to the quality requirements of the program.
2. Seller may use sample inspection plans, when tests are destructive, or when the records or inherent characteristics of the product indicate that a reduction in inspection/testing can be achieved without jeopardizing product quality.
3. Sample inspection shall be in accordance with the applicable Buyer specification. When not specified by Buyer, military standard sampling plans, from ANSI/ASQCZ1.4-11, MIL-STD-414, or handbooks H016, H017, or H018, ISO 2859 shall be used.
4. All sample inspection plans shall provide valid confidence in specified quality levels.

K. IDENTIFICATION

1. All materials shall be identified by a part number and revision, permanently and legibly affixed directly to the surface of each article,
2. In the event this is not possible due to physical size or nature of material, an identification tag shall be securely affixed to each article, or
3. If articles are supplied in individual or multi-unit containers the container shall reveal the appropriate identification.

Examples of traceable information may include, but are not limited to:

- Date of Manufacture
- Serial Number
- Lot Number
- Control Number
- Heat Lot Number
- Final Inspection Date
- Batch Number
- Casting Number
- Work Order Number

L. PACKAGING, PRESERVATION, AND STORAGE

1. Seller shall incorporate good commercial practices for preservation and packaging of all articles that apply to this Procurement Document.
2. Seller shall identify each package permanently and legibly with Procurement Document number, manufacturer's name, date shipped, and packing sheet number.
3. Packaging shall be selected, to the extent necessary, to provide protection from physical and environmental damage during shipping and handling.
 - a. Cushioning materials shall be applied, as required, to protect and to restrict movement of items.

4. All materials which are volatile, toxic, or emit fumes, which are harmful to human health, shall be properly contained in accordance with applicable health and safety requirements. Seller shall take appropriate measures to prevent handling damage, from preparation for shipment through receipt (i.e., palletizing, shrink wrapping, or otherwise securing materials for shipment to prevent degradation during transit).
 - a. Containers shall be plainly marked as to its contents with appropriate warnings, precautions, instructions, and storage conditions.
 - b. Material Safety Data Sheet (MSDS) shall be included with each shipment.

M. STORAGE AND SHELF LIFE

1. Seller shall identify materials and articles having definite characteristics of quality degradation or drift with age and/or the environment.
 - a) Identification shall indicate the date and/or cycle that the critical life was initiated and the date and/or cycle at which the useful life will be expended.
 - b) If environment is a factor in determining useful life, identification shall also include the storage temperature, humidity, etc., required to achieve the stated useful life.
2. Seller shall provide a copy of the manufacturers Certificate of Conformance (C of C) that defines the shelf life characteristics of any material that fits into this category. Identification shall include the following information as a minimum:
 - a) Date of manufacturer
 - b) Batch and/or lot numbers
 - c) Date of expiration
 - d) Procurement Document number
 - e) Any special storage conditions for the material

If a material has no identified shelf life the certificate shall note this condition. Seller's certificate should be traceable to the place of procurement or manufacturer. A manufacturer's certificate that is traceable to the material provided is acceptable.

3. In no case shall materials or articles be supplied to the Buyer with less than 75% of its useful life or cycles remaining; however, Seller shall verify that sufficient operating life and environmental margin remains to meet the specified requirements of the procurement document.
4. If Buyer so chooses they may accept material with less than 75% of the shelf life remaining due to critical need and will document this action on the Procurement Document directing the seller to ship the material.

N. SELLER'S BASIC CERTIFICATE OF CONFORMANCE

1. A Certificate of Conformance shall be provided with each shipment with the following information at a minimum:
 - a. Procurement Document and Line Item Number
 - b. Identifying nomenclature such as Item Name, Part Number, Revision, Serial Numbers
 - c. Quantity shipped
 - d. Conformance Clause: "The items furnished per Buyer's procurement document have been manufactured, tested, and inspected in accordance with the requirements of the applicable specifications/drawings and the results of such tests and inspections meet the requirements thereof." (or equivalent wording)
 - e. The Certification of Conformance shall be signed by Seller's duly authorized representative.
2. The seller shall provide their standard Certificate of Conformance to certify that the articles delivered under this Procurement Document conform to the applicable requirements of Buyer's or Manufacturer's specifications for the article ordered.

O. CERTIFICATE OF GOVERNMENT APPROVED QUALIFIED PARTS LIST (QPL) ITEMS

When the items supplied are required to be Qualified Parts List (QPL)/Qualified Manufacturers Line (QML) parts the following shall apply:

1. Seller shall submit a certification identifying that the manufacturer of the material described herein has been granted qualification by the Defense Supply Agency (DSA) in accordance with the applicable military specification.
2. The inclusion of products from the QPL shall not relieve the manufacturer of their responsibility for providing items, which meet all specification requirements, or for performing the qualification, inspections, and tests specified for such items.

P. CONTROL OF PROCESSES

1. Seller shall monitor processes to ensure supplier services and/or products meet contractual requirements
2. Seller shall take corrective action when process measures indicate that products or services could potentially fall outside of acceptable, contractual limits.

Q. DISCLOSURES AND NOTIFICATIONS

1. The Seller's system shall provide for timely reporting to the Buyer of nonconformities that may affect already delivered product, including suspect/counterfeit parts, materials, and conditions under which product malfunctions, defects, and un-airworthy conditions have to be reported and dispositioned, or any continuing airworthiness actions.

2. Seller shall ensure that their quality management system has the capability to report nonconformance(s) on Critical Safety Items (CSI) in full compliance with Defense Federal Acquisition Regulation Supplement (DFARS) 252.246-7003.

R. CANCELLED OR SUPERSEDED SPECIFICATIONS

1. “Cancelled or superseded military specifications that are called out on legacy End User engineering drawings and drawings with End User acquired design cognizance, shall be certified to the latest or superseding specifications, and provided there is a clear linkage via DODISS or IHS website.

NOTE: Suppliers are cautioned to verify the “Cancellation Notice is still in affect” because certain cancelled military specifications have been reinstated in recent years.

a. Processing shall be continued to the cancelled specification when the “Cancellation Notice” does not provide a clear direction for a superseding specification or as directed by the cognizant M & P Engineering.”

S. CONTAMINATION/FOREIGN OBJECT DEBRIS (FOD)

1. Supplier shall ensure that the work environment needed to achieve conformity of product and service requirements includes the elimination of contamination or foreign objects being introduced during any manufacturing, testing or packaging activities. This requirement is applicable to the extent of the supplier’s business activities.

NOTE: Good housekeeping practices should identify and preclude any foreign object or contamination being introduced during processing a shipment to NGC, or directed customer.

T. REQUEST FOR CHANGE/INFORMATION (RC/I)

1. Seller shall utilize the RC/I process to request clarification or change of a drawing / specification requirement.

2. Access to this form shall be requested by Seller.

NOTE: The RC/I Form P0-F030 and the Help Desk contact list are available on OASIS/MyOASIS @ website - <https://oasis.northgrum.com>. If a Supplier has any changes to drawings, specifications noted on the drawing, processing, materials, or contractual requirements of the Procurement Document, a Request for Change/Information (RC/I), Form P0-F030, can be initiated by the supplier to request assistance. RC/Is that are considered producibility enhancements will require the supplier to submit a business case presented upon RC/I issuance. The business case will provide justification on how the enhancement will improve quality, cost and/or schedule. Product nonconformance’s are not to be documented on and will not be processed using the RC/I form.

SQ02 Buyer Inspection/Surveillance

Guidance: Select each section that is required A, B, C, D, E, F, G, or H.

A. SOURCE INSPECTION

1. Buyer shall be present (or provide a representative) to perform source inspection at Seller's facilities or where designated in the Procurement Document prior to shipment.
2. Inspection and test of the articles defined in this contract shall be performed by Seller, and shall be subject to witnessing by Buyer (or representative).
3. Seller shall provide reasonable inspection facilities for Buyer (or representative) to verify conformance to requirements.
4. Seller shall provide inspection/test data and reports to Buyer's Source Inspector indicating which characteristics, parameters, dimensions, etc., were actually tested/inspected for validation to Buyer's specification/drawing requirements.
5. After Buyer's Source Inspection, any rework or test of the item, including any nonscheduled entry, such as removal of a panel, cover, or enclosure shall void the source inspection.
6. For any nonscheduled entry, rework, or test, Seller shall request Buyer to repeat source inspection.
7. Buyer shall be notified at a minimum of seven (7) workdays prior to commencement of these activities to allow for arrangements for Buyer and/or Buyer's quality representative to be present during inspection and test.

B. BUYER IN-PROCESS INSPECTION

1. Buyer or Buyer's representative shall perform in-process inspection at Seller's facilities.
2. Seller shall submit to Buyer an inspection plan or traveler designating in-process source inspection points.
3. Buyer shall designate required in-process source inspection points and inform Seller in writing.
4. Seller shall provide reasonable inspection facilities for Buyer or Buyer's representative to verify conformance to requirements.
5. After Buyer's Source Inspection, any rework or test of the item, including any nonscheduled entry, such as removal of a panel, cover, or enclosure shall void the source inspection.
6. For any nonscheduled entry, rework, or test, Seller shall request Buyer to repeat source inspection.
7. Seller shall notify Buyer at a minimum of 48 hours prior to the time in-process inspection coverage is required.

C. BUYER PRECAP INSPECTION

Items in the procurement document shall require pre-cap inspection by Buyer's Quality Field Engineering subsequent to the 100 percent pre-cap visual inspection performed by Seller.

D. BUYER SCANNING ELECTRON MICROSCOPE ANALYSIS

1. Buyer's approval of Scanning Electron Microscope (SEM) analysis shall be required for wafer lots to be incorporated in parts supplied to Buyer's Quality Field Engineering.
2. SEM analysis shall be performed by Seller and shall be approved by Buyer prior to the incorporation of wafers in parts.

E. BUYER SOURCE SURVEILLANCE

1. Buyer's Quality Field Engineering shall perform surveillance at Seller's facilities during the contract period.
2. Surveillance shall be scheduled by Buyer, and coordinated with Seller prior to implementation.
3. Surveillance activities shall include all functional areas necessary for Buyer or Buyer's representative to verify the quality of the procured product.

F. BUYER SOFTWARE AUDITS

Buyer or Buyer's representative shall perform audits, reviews, and/or verifications at Seller's facilities during the development and test of software to be furnished for this procurement.

G. Electronic Source Inspection

1. Seller shall provide electronic source inspection.
2. Electronic source inspection shall consist of photos sent to Buyer via electronic media. Test data shall also be sent electronically when SQ07 is required on the Procurement Document.
3. Buyer shall review and provide authorization to ship predicated on the results of the photos and test data when test data is required with SQ07 on the Procurement Document.

H. VERIFICATION OF PURCHASED PRODUCT

1. Verification activities performed by the Buyer or Buyer's customer at any level in the Seller's supply chain shall not be used by the Seller as evidence of effective control of quality and does not absolve the organization of its responsibility to provide acceptable product and comply with all requirements.

NOTE: Verification activities can include:

- a. Obtaining objective evidence of the conformity of the product from the Seller (e.g. accompanying documentation, certificate of conformity, test records, statistical records, process control records)
 - b. Inspection of the required documentation
 - c. Inspection of products upon receipt, and
 - d. Delegation of verification to the supplier or supplier certification
2. Where purchased product is released for production use pending completion of all required verification activities, it shall be identified and recorded by the Seller to allow recall and replacement if it is subsequently found that the product does not meet requirements.
3. If the Buyer delegates verification activities to the supplier, the requirements for delegation shall be define by the Buyer and a register of delegated shall be maintained by the Seller.

SQ03 U.S. Government Source Inspection (NASA)

Guidance: ~~A, B, C, D and E all apply when SQ03 is required.~~

- A. All work under the procurement document shall be subject to inspection and test by the U.S. Government at any time and place.
- B. The U.S. Government representative, who has been delegated NASA quality assurance functions for the procurement document, shall be notified immediately upon receipt thereof.
- C. The U.S. Government representative shall be notified three working days in advance of the time the items are ready for inspection or test.
- D. In the event the U.S. Government representative cannot be contacted, Buyer shall be notified immediately.
- E. Seller, without additional charge to the procurement document, shall provide all reasonably required facilities and assistance for the convenience and safety of the U.S. Government representatives in the performance of their duties.

SQ04 U.S. Government Source Inspection (DoD)

Guidance: A, B, C, D and E all apply when SQ04 is required.

A. U.S. Government source inspection shall be required prior to shipment from Seller's facility.

B. Upon receipt of this procurement document, Seller shall immediately notify and provide a copy of the procurement document to the U.S. Government representative,

who normally services Seller's facility, so appropriate planning for U.S. Government source inspection can be accomplished.

C. If a U.S. Government representative does not normally service Seller's facility, the nearest Army, Navy, Air Force, or Defense Agency inspection Office shall be contacted.

D. In the event a U.S. Government representative cannot be contacted, Buyer shall be notified immediately.

E. Seller, without additional charge to the procurement document, shall provide all reasonably required facilities and assistance for the convenience and safety of the U.S. Government representatives in the performance of their duties.

SQ05 Raw Material Documentation Requirements

~~Guidance: Select each section that is required A or B when SQ06 is required~~

A. Shipment of materials, whether raw, semi-finished, or finished, shall be accompanied by a Certificate of Conformance from Seller, stating at a minimum:

1. Material identification by specification number and material conditions, where applicable.
2. The raw material manufacturer's or mill's lot or batch number.
3. A statement of raw material conformance to applicable requirements.
4. The name and location of the raw material manufacturer or mill.

B. All items defined in SQ05-A with the addition of actual chemical/physical test results that substantiate compliance with the applicable raw material and/or specification requirements shall be provided.

SQ06 Control of Special Processes

~~Guidance: A and B apply when SQ06 is required.~~

A. Buyer shall approve special processes performed by Seller, or any of its sub-tier suppliers, including the system/procedures used to control special processes. Processes requiring Buyer approval include:

1. Welding, destructive physical analysis, brazing, dye penetrate inspection, painting, radiographic inspection, plating, heat treating of metals, casting, chemical surface treatments, forging, contamination control, bonding, magnetic particle inspections, conformal coat, composites, soldering, pressure test, and ultrasonic inspection
2. Any other processes defined in the Procurement Document

B. Buyer approval of special processes shall not relieve Seller of responsibility for exercising the control measures necessary to ensure delivered items conform to the requirements of the Procurement Document.

SQ07 Inspection / Test Data

Guidance: A and B apply when SQ07 is required.

A. When Buyer's specifications or Procurement Document require test data to be recorded during the performance of acceptance testing, a paper or preferably electronic copy of the recorded data, showing evidence of Seller's inspection and verification of performance, shall accompany each shipment.

B. Data shall meet the requirements of Buyer's specifications or Procurement Document and, at a minimum, be identified with:

1. Buyer's Procurement Document number and change notice number
2. Part number
3. Lot numbers, serial numbers, or date codes of items tested
4. Drawing/specification and revision used
5. Type of test performed
6. Identification number of test equipment used
7. Total quantity of items tested, quantity of items accepted, and quantity of items rejected
8. Any codes, keys, or other information necessary to interpret Seller data

SQ08 Radiographic / Computer Tomography Inspection

Guidance: A, B, C, D, and E apply when SQ08 is required. Exclusion of B or C is acceptable based on inspection method.

A. Seller shall be approved by Buyer to perform the radiographic/computer tomography inspection applicable to this Procurement Document or shall use a facility approved by Buyer.

B. Unless otherwise specified by the parts specification, each radiograph shall comply with ASTM E 1742 "Radiographic Examination", MIL-STD-883 "Test Method and Procedures for Microelectronics", and MIL-STD-750 "Test Method for Semiconductor Devices".

C. Unless otherwise specified by the parts specification, computer tomography shall comply with ASTM-E1441 "Standard Guide for Computer Tomography Imaging".

D. The radiographic film / image and a copy of the report shall accompany the shipment of the items to Buyer.

E. Serial number location and x-ray position shall be recorded as part of, or attached to, the report.

SQ09 Requirements for Distributors

Guidance: A, B and C apply when SQ09 is required.

- A. The Distributor (a Seller other than the Manufacturer) shall certify that the articles delivered under this Procurement Document conform to the applicable requirements of Buyer's or Manufacturer's specifications for the article ordered.
- B. The Distributor certification of conformance shall include the following information:
1. The origin of manufacture
 2. Part number
 3. Applicable traceability information (date lot code, etc.)
 4. Results of testing or special inspection, as required.
 5. Dated signature of authorized Seller Representative
 6. Items identified by Buyer number shall have complete information as to the original manufacturer and original manufacturer's part number
- C. The Distributor shall maintain and provide evidence of material authenticity (chain of custody) back to the Original Component Manufacturer/ Original Equipment Manufacturer/ Authorized Aftermarket Manufacturer shall be provided. The Certification shall clearly identify the name and location of all of the supply chain intermediaries from the original manufacturer to the final source of the product delivered to Mountain Aircraft Services, INC.

SQ10 Seller Inspection Reporting Requirements

Guidance: A, B, C, and D apply when SQ10 is required.

- A. Seller shall submit, with each shipment of items, one copy of an inspection report reflecting 100 percent inspection verification of all drawing characteristics, including notes, for all products.
- B. The report shall delineate each drawing characteristic and specify the corresponding actual measurement results.
- C. Inspection record traceability shall be maintained by either serializing each item, if allowed, or tag identification. The item identification is then matched with the corresponding inspection report.
- D. The only exception to the above procedure applies to items machined under tape-controlled or automatic conditions. In that case, the 100 percent inspection report shall be limited to the first and last item procured from one continuous set-up.

1. The inspection report shall state that the items were machined under tape-controlled or automatic conditions.

SQ11 Calibration System Requirements

~~Guidance: A and B apply when SQ11 is required - Buyer shall specify applicable calibration standard in B (1, 2, 3, 4, or 5).~~

- A. Seller shall be responsible for the calibration, accuracy, validation, and maintenance of any equipment, tooling, or gauges utilized by Seller to produce, inspect, or test articles to be delivered under this Procurement Document.
- B. Seller's equipment calibration system shall be in accordance with one of the five requirements listed below:
 1. MIL-STD-45662A or
 2. ANSI/NCSL Z540-1 or
 3. ISO 10012-1 or
 4. ISO 17025

SQ12 Control of Software

~~Guidance: Select any combination of A, B, and C that apply. A Software Quality Assurance Program shall be selected when using A: SQ12A-a, SQ12A-b, SQ12A-c, or SQ12A-d.~~

A. SOFTWARE QUALITY PROGRAM

1. Seller shall establish a Software Quality Assurance Program that conforms to the standards specified below, and is subject to Buyer review and approval:
 - a. AS9006, Deliverable Aerospace Software Supplement for AS9100A, or or AS9115 Requirements for Aviation, Space and Defense Organizations - Deliverable Software,
 - b. ISO/IEC 12207, Software Life Cycle Processes,
 - c. Capability Maturity Model Integration (CMMI) - Level 3 or higher, or
 - d. Federal Aviation Administration DO-178 - Software Considerations in Airborne Systems and Equipment Certification.

B. SOFTWARE DELIVERY DOCUMENTATION

1. Seller shall deliver software documentation as specified in the Procurement Document.
2. Software documentation shall be sufficient to ensure:
 - a. All requirements are achieved or waivers are submitted
 - b. Configuration is correct and deliverables are properly identified and marked

- c. Planned level of acceptance is achieved and/or approved deviation/waivers are made part of the deliverable documentation package
- d. Operating instructions accompanying the developed software are sufficient to enable loading, initialization, and operation by Seller's personnel

C. CONTROL OF SOFTWARE

- 1. Seller shall provide and maintain a system for the control of software used in the fabrication, qualification/acceptance testing of deliverable hardware, software, and firmware to be furnished for this procurement.
- 2. Seller shall maintain procedures and test records for items delivered to Buyer and these records shall be available for Buyer review.

SQ13 Electrostatic Discharge Control

Guidance: A, B, C and D apply when MSQ13 is required.

A. Seller shall provide and maintain a program for Electrostatic Discharge (ESD) control for hardware items to be furnished for this procurement in accordance with one or more of the following standards:

- 1. MIL-STD-1686 Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment (excluding Electrically Initiated Explosive Devices)
- 2. ANSI-S20.20 Parts, Electrical and Electronic, Assemblies and Equipment, Protection of (excluding Electrically Initiated Explosive Devices), for the Development of an Electrostatic Discharge Control Program
- 3. EIA 625 Requirements for Handling Electrostatic Discharge Sensitive Devices
- 4. MSFC-STD-1800 ESD Control for Propellant and Explosive Devices
- 5. DoD 4185.26m Contractors Safety Manual for Ammunition and Explosives
- 6. JEDEC-STD-033 Standard for Handling, Packing, Shipping, and Use of Moisture/Reflow Sensitive Surface-Mount Devices

B. Seller's ESD control program shall be subject to review and approval by Buyer.

C. Items shall be packaged with ESD protective material.

- 1. ESD protective caps shall be used on equipment external connectors or contacts that connect to ESD parts and assemblies within the equipment.
- 2. All packages shall be identified with a suitable precautionary label.
- 3. The label shall not be utilized as a sealing device.

D. Any ESD components or assemblies received by Buyer that are not in an ESD protective material shall be subject to return to Seller. NOTE: ESD requirements are defined as applicable to any active or passive components.

SQ14 Interchangeability/Replaceability

Guidance: ~~Select A, or B when MSQ14 is required.~~

A. Interchangeability: As noted in MIL-I-8500, “Interchangeability” applies to “interchangeable items” that are manufactured with the aid of controlled media, and require only the application of attaching means for their installation. Interchangeable items shall be capable of being readily installed, removed, or replaced without alteration, misalignment, or damage to items being installed or to adjoining items or structure.

B. Replaceability: As noted in MIL-I-8500, “Replaceability” applies to “replaceable items” that are manufactured with the aid of controlled media, and the installation of which requires alterations of the items in addition to the normal application and methods of attachment. Such alterations may include drilling, reaming, cutting, filing, trimming, bending, shaping, etc.

SQ15 Reserved

SQ16 Reserved

SQ17 Prohibited Material

Guidance: ~~Buyer will specify A and/or B. C always applies when SQ17 is required.~~

A. All constructions and finishes containing pure cadmium or pure zinc shall be prohibited.

B. Constructions and finishes containing pure tin shall be prohibited unless they contain a minimum of 3 weight percent alloying element(s), i.e., lead, silver, etc.

C. Seller shall submit a certificate with each shipment stating that no prohibited materials are present in their deliverable product.

SQ18 252.225-7016 RESTRICTION ON ACQUISITION OF BALL AND ROLLER BEARINGS

Guidance: ~~A, and B apply when SQ45 is required.~~

A. Each ball and roller bearing delivered under this contract shall be manufactured in the United States, its outlying areas, or Canada; and

- B. For each ball or roller bearing, the cost of the bearing components manufactured in the United States, its outlying areas, or Canada shall exceed 50 percent of the total cost of the bearing components of that ball or roller bearing.

SQ19 Quality Management System

Guidance: ~~Select A or B, C or D, or E, F, G, H, I, J, K, L, M or N, O or P, Q or R, S or T~~

A. ISO 9001 Compliant

1. Seller shall provide and maintain a Quality System that is compliant to ISO 9001.
2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having a successful audit performed by Buyer or Buyer's representative.

B. ISO 9001 Registered

1. Seller shall provide and maintain a Quality System that is registered to ISO 9001.
2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having an ISO Certification from an accredited registrar.
 - a. Buyer shall reserve the right to conduct an assessment of Seller's Quality System.

C. AS9100 Compliant

1. Seller shall provide and maintain a Quality System that is compliant to AS9100.
2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having a successful audit performed by Buyer or Buyer's representative.

D. AS9100 Registered

1. Seller shall provide and maintain a Quality System that is registered to AS9100.
2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having an AS Certification from an accredited registrar.
 - a. Buyer shall reserve the right to conduct an assessment of Seller's Quality System.

E. Capability Maturity Model Integration (CMMI-DEV) - Level 3

1. Seller shall provide and maintain a Quality System that meets the requirements of CMMI Level 3.
2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having Software Engineering Institute (SEI) CMMI 3 rating from an accredited appraiser.

a. Buyer shall reserve the right to conduct an assessment of Seller's Quality System.

F. Capability Maturity Model Integration (CMMI-DEV) - Level 4

1. Seller shall provide and maintain a Quality System that meets the requirements of CMMI Level 4.

2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having Software Engineering Institute (SEI) CMMI 4 rating from an accredited appraiser.

3. Buyer shall reserve the right to conduct an assessment of Seller's Quality System.

G. Capability Maturity Model Integration (CMMI-DEV) - Level 5

1. Seller shall provide and maintain a Quality System that meets the requirements of CMMI Level 5.

2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having Software Engineering Institute (SEI) CMMI 5 rating from an accredited appraiser.

a. Buyer shall reserve the right to conduct an assessment of Seller's Quality System.

H. FAA FAR Part 145 Repair Station

1. Seller shall provide and maintain a Quality System that is compliant to FAR Pt. 145 requirements approved by the regional FSDO or higher level FAA office.

2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having a successful audit performed by Buyer or Buyer's representative.

3. Seller shall maintain a type rating on the FAA FAR Pt. 145 certificate applicable to the airframe and/or commodity affected by the procurement document.

I. Quality Management System

1. Seller shall have a formalized Quality System.

2. Buyer shall have the right to conduct surveys, audits, and surveillance of the Seller's capability to perform satisfactorily to these requirements.

J. Capability Maturity Model Integration (CMMI-SV) for Services - Level 3

1. Seller shall provide and maintain a Quality System that meets the requirements of CMMI for Services Level 3.

2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having Software Engineering Institute (SEI) CMMI for Services 3 rating from an accredited appraiser.

a. Buyer shall reserve the right to conduct an assessment of Seller's Quality System.

K. Capability Maturity Model Integration (CMMI-SV) for Services - Level 4

1. Seller shall provide and maintain a Quality System that meets the requirements of CMMI for Services Level 4.

2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having Software Engineering Institute (SEI) CMMI for Services 4 rating from an accredited appraiser.

a. Buyer shall reserve the right to conduct an assessment of Seller's Quality System.

L. Capability Maturity Model Integration (CMMI-SV) for Services - Level 5

1. Seller shall provide and maintain a Quality System that meets the requirements of CMMI for Services Level 5.

2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having Software Engineering Institute (SEI) CMMI for Services 5 rating from an accredited appraiser.

a. Buyer shall reserve the right to conduct an assessment of Seller's Quality System.

M. AS9110 Compliant

1. Seller shall provide and maintain a Quality System that is compliant to AS9100.

2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having a successful audit performed by Buyer or Buyer's representative.

N. AS9110 Registered

1. Seller shall provide and maintain a Quality System that is registered to AS9100.

2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having an AS Certification from an accredited registrar.

a. Buyer shall reserve the right to conduct an assessment of Seller's Quality System.

O. AS9120 Compliant

1. Seller shall provide and maintain a Quality System that is compliant to AS9100.

2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having a successful audit performed by Buyer or Buyer's representative.

P. AS9120 Registered

1. Seller shall provide and maintain a Quality System that is registered to AS9100.
2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having an AS Certification from an accredited registrar.
- a. Buyer shall reserve the right to conduct an assessment of Seller's Quality System.

Q. ISO 20000 Compliant

1. Seller shall provide and maintain an IT Service Management System that is compliant to ISO 20000
2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having a successful audit performed by Buyer.

R. ISO 20000 Registered

1. Seller shall provide and maintain an IT Service Management System that is registered to ISO 20000
2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having an ISO 20000 Certification from an accredited registrar.
- a. Buyer shall reserve the right to conduct an assessment of Seller's IT Service Management System

S. Information Technology Infrastructure Library (ITIL) Compliant

1. Seller shall provide and maintain an IT Service Management System that is compliant to ITIL.
2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having a successful audit performed by Buyer.

T. ITIL Certified

1. Seller shall provide and maintain an IT Service Management System that is certified to ITIL
2. Seller's capability to perform satisfactorily to these requirements shall be demonstrated by having an ITIL Certification of appropriate personnel from an accredited registrar.
- a. Buyer shall reserve the right to conduct an assessment of Seller's IT Service Management System

SQ20 First Article Inspection

Guidance: ~~A, B, C and D apply when SQ20 is required~~

- A. Inspection and acceptance by Buyer of the first article shall be required prior to the start of fabrication of a new product or supplier, if it has been 24 months or more

since last product was produced, or a change to form, fit, or function of the product has occurred.

- ⦿ Where product does not meet the intent of "first production run", as defined within AS9102, 100% of all product characteristics shall be inspected.
- B. Seller shall submit a First Article Report on an AS 9102 First Article Form, or equivalent, to Buyer demonstrating compliance with the requirements in the Procurement Document and referenced documents (refer to AS9102 and ASME Y14.41 for guidance).
 1. The report shall reflect 100 percent inspection verification of all drawing characteristics.
 2. The report shall delineate each drawing characteristic and specify the corresponding actual measurement results.
 3. The report shall provide evidence of acceptance by the Seller's authorized Quality Assurance representative.
- C. Seller shall notify the Buyer the opportunity to witness the performance of First Article Inspection/Testing.
- D. The FAI requirement, once invoked, shall continue to apply even after initial compliance. Any or all of the following events requires re-accomplishment of a full, or a delta/partial FAI for affected characteristics:
 1. A change in manufacturing source(s), processes, assembly line, inspection method(s), location, tooling, or materials.
 2. A change in numerical control program or translation to another media.
 3. A natural or man-made occurrence which may adversely affect the manufacturing process.
 4. When required as part of corrective action for a part number with repetitive rejection history.

SQ21 Reserved

SQ22 Contamination / Foreign Object Debris (FOD) & Tool Control

Guidance: ~~A, B, C, D and E apply when SQ22 is required.~~

- A. Seller shall maintain an FOD prevention program, including tool control.
- B. Seller's FOD prevention program shall include the review of design and manufacturing processes to identify and eliminate foreign object entrapment areas and paths through which foreign objects can migrate.
- C. Seller's Tool Control program shall include identification, inventory and location control to reduce the risk of lost tools.

- D. Buyer shall have the right to perform inspections, verifications, tool control, and FOD prevention program audits at Seller’s facility to ensure program documentation and effectiveness.
- E. Articles ordered under this Procurement Document shall be protected by Seller from contamination or damage from foreign objects or tool control during processing, testing, inspection, handling, and packaging prior to delivery to Seller.

SQ23 Unique Identification (UID) (DFARS 252.211-7003)

Guidance: A and B apply when SQ23 is required. C and D are required only when they are specified.

- A. Defense Federal Acquisition Regulation Supplement (DFARS) clause 252.211-7003, Item Identification and Valuation shall be applied to this Procurement Document.
- B. UID shall be in compliance with MIL-STD-130 (latest revision).
- C. Certification of individual Matrix verification shall be supplied by the UID processor to attest that electro-optical scanning and legibility of the UID is consistent with recording standards of UID marking and identification systems.
- D. Certification of Registration for individual and/or itemized UID nameplates and identification plates shall accompany shipment which affirms accountability and traceability into the U.S. Government web database @ website - <https://iuid.logisticsinformationservice.dla.mil/>.

SQ24 Solder Workmanship Standard

- A. Soldering and processing of electronic assemblies shall be in accordance or equivalent with IPC-A-610 “Acceptability of Electronic Assemblies” or J-STD-001 “Requirements for Soldered Electrical and Electronic Assemblies”.

SQ25 Solderability

Guidance: A, B, and C apply when SQ25 is required.

- A. Material submitted with each shipment shall have had solderability testing performed in accordance with one or more of the following specifications:
1. MIL-STD-750, Method 2026
 2. MIL-STD-883, Method 2003
 3. MIL-STD-202, Method 208
 4. MIL-P-55110
 5. MIL-P-50884
 6. J-STD-001

7. J-STD-002

8. J-STD-003

B. Seller shall supply a copy of the certification by an accredited agency to one or more of the specifications listed in article A with each order.

C. If, during the life of that Procurement Document, the certification is revoked or the certification expires, all efforts against this Procurement Document shall be stopped.

1. Buyer shall be notified in writing within twenty four hours.

SQ26 Material Outgoing to Seller (Customer Furnished Property)

Guidance: A, B, C, and D apply when SQ26 is required.

- A. Materials furnished to Seller, by Buyer, shall require accountability by Seller.
 - B. Materials shall be stored and handled in such a manner to ensure the integrity of the material is maintained.
 - C. Seller shall obtain direction from Buyer concerning the disposition of rejected and/or unused quantities, or usable trimming remaining at the end of the procurement activity.
 - D. Seller shall be responsible for maintaining records of identity and the assurance of continued suitability of the tooling, test equipment, etc., while such materials are in their possession.
1. Return of the equipment shall be arranged through Buyer. SQ27 Cable

Workmanship Standard

- A. Workmanship shall be in accordance with IPC/WHMA-A-620 "Requirements and Acceptance for Cable and Wire Harness Assemblies."

SQ28 Printed Wiring Board

Guidance: A and B apply when SQ28 is required.

- A. Printed Wiring Boards fabricated under this Procurement Document shall comply with the requirements of IPC-A-600 "Acceptability of Printed Boards", IPC-6011 "Generic Performance of Printed Boards", and IPC-6012 "Qualification and Performance Specification for Rigid Printed Boards".
 - B. Coupons shall be included if defined on the drawing with each shipment. SQ29 Test Coupon
- A. Test coupons shall be provided per the specification for each shipment. SQ30 Printed

Wiring Board Testing

Guidance: A and B apply when SQ30 is required.

- A. Unless otherwise specified in Engineering Requirements Documentation, Seller shall perform bare board testing with these values: Test voltage -10-250V, continuity -10 ohm maximum, insulation resistance -10K ohm minimum.
1. Acceptable boards shall be acceptance stamped.

2. Rejected boards shall be identified with the from/to path of failure and annotated either short or open.
3. Seller shall not repair.
- B. Automated electro-optical inspection shall be required with this order if the boards have 4 or more layers.
 1. Layer defects shall be reported to Buyer for authorization to repair.

SQ31 Reserved

SQ32 Reserved

SQ33 Drop Ship

Guidance: A and B apply when SQ33 is required.

- A. Seller shall deliver parts/material to address identified on the Procurement Document.
- B. A copy of all required documentation shall be sent to Buyer for receipt and review. SQ34 End Item

Data Package

Guidance: A, B and C apply when SQ34 is required.

- A. An End Item Data Package (EIDP) shall be developed, maintained, and provided, which incorporates the following information:
 1. Seller Certificate of Conformance (refer to section N of SQ01)
 2. Specification/drawing number and revision
 3. As-built configuration (Indentured Parts List - may not be required for software)
 4. Proof of traceability requirements compliance (serial numbers, lot numbers, batch number, software version, etc.)
 5. Documented non-conformances
 6. Documented open action items
 7. Incorporated Change Orders (Engineering Change Proposals (ECPs))
 8. Certificate of Conformances from sub-tier suppliers with objective evidence to validate the certificates
 9. Type of inspection performed and recorded results
 10. Type of test performed and recorded results
 11. Total quantity of items tested, quantity of items accepted, and quantity of items rejected
 12. Applicable Government Industry Data Exchange Program (GIDEP) alerts, waivers, deviations, and incident reports

13. Verification of compliance with useful life requirements, e.g., total operating time, thermal cycles, vibration time.

B. Buyer shall refuse to accept item if Seller fails to submit certifications, documentation, test data, or reports specified in the procurement document. Documentation shall include Buyer's source inspection if such source inspection is performed.

C. Written approval shall be obtained from Buyer for any deviations to the EIDP.

SQ35 Manufacturing Plan Submittals for Critical and Designated Parts

Guidance: A and B apply when SQ35 is required.

A. When manufacturing plans are required by engineering or by your purchase order, they will be submitted to Mountain Aircraft Services, INC. at least thirty (30) days prior to start of production. The submittal shall be on the Request for Change/Information form. The manufacturing plan shall contain sequential fabrication, processing, processor name and inspection steps in the order required by the applicable process specification(s) and/or engineering drawing(s).

B. Upon approval of supplier's manufacturing plan, the supplier shall control all manufacturing, processing, testing and inspections as stated in the approved plan. No deviations, including the selection of supplier's sub-tier suppliers/processors, is permitted without Mountain Aircraft Services, INC. prior knowledge and written authorization.

NOTE: Manufacturing plans can be approved without NDT technique approval and manufacturing of parts is allowed up to a point for NDT.

SQ36 Tooling Requirements

Guidance: A and B apply when SQ36 is required.

A. The Mountain Aircraft Services, INC. Supplier Tooling Manual delineates requirements for suppliers who have purchase orders that require manufacture, rework or use of Special Tooling (ST) and Special Test Equipment (STE). These requirements are applicable to all Government ST and STE fabricated and/or used in the manufacture of deliverable end items, unless specifically stated otherwise on the purchase order. Suppliers shall flow down requirements identified in this manual to their sub-tier suppliers that fabricate or design tooling on their behalf.

B. At a minimum, Special Tooling (supplier manufactured or End User furnished) used as a media of inspection shall be delineated in the supplier's manufacturing plan at the applicable operation/sequence where the inspection occurs.

1. Inspection media tooling shall be controlled as part of the supplier's "Periodic or Calibration" system prior to use in production.

SQ37 Qualified Die for Castings and Forgings

A. In accordance with applicable material specifications as called out on the engineering drawing or purchase order and prior to initial production, End User designed castings or forgings shall require a First Piece Inspection.

1. The die or pattern shall be qualified per the requirements established.
2. All actual die dimensions shall be recorded on an AS 9102 First Article Form, or equivalent, as required.
3. The form shall then be submitted to the End User's Engineer for validation, and approval.
4. Shipment shall be withheld pending die or pattern dimensional approval from Program.

SQ38 RESERVED

SQ39 Calibration Services Requirements for Supplier Providing Calibration

Guidance: ~~A, B, and C apply when SQ39 is required~~

A. Seller shall be responsible for the calibration and applicable maintenance of any equipment, tooling, or gauges provided from the Buyer to the Seller under this procurement agreement.

B. Seller's equipment calibration system shall be in accordance with one of the four requirements listed below:

1. MIL-STD-45662A
2. ANSI/NCSS Z540
3. ISO 10012-1
4. ISO 17025

C. Seller shall provide a data package for each service that meets the requirements of the above standards including as found and final results, acceptance criteria, and traceability to applicable national standards.

SQ40 Reserved

SQ41 Service Requirements

Guidance: A and B apply when SQ41 is selected

A. The Seller shall establish and implement a service plan that includes:

1. Provisions for ensuring personnel performing the service have the education, experience, knowledge and/or combination to successfully deliver the service.
2. Key measures of service performance including action thresholds. Key measures to be used to gauge the consistency, efficiency and effectiveness of the service being provided.
3. Specific actions to take when performance measurements indicate that the service is not meeting expectations.
4. A means to obtain and incorporate customer feedback on service performance.
5. A method to continually improve the level of service.

B. The Seller shall institutionalize the service plan as part of their standard management system.

SQ42 Staff Augmentation

Guidance: A, and B apply when SQ42 is required.

A. The Seller shall establish and implement a staffing plan that includes:

1. Provisions for ensuring personnel have the education, experience, knowledge and/or combination to successfully perform job responsibilities.
2. A system to measure and communicate individual and team performance.
3. Specific actions to take when performance measurements indicate that resources are not meeting expectations.
4. A means to communicate staffing changes to the Buyer. The Buyer reserves the right to approve staffing changes for those positions deemed critical.
5. A method to reward and incentivize employees.

B. The Seller shall institutionalize the staffing plan as part of their standard management system

SQ43 Counterfeit Prevention

Guidance: A, B, C and D apply when SQ43 is required.

A. The supplier shall have documented processes, appropriate to the organization and the product, for the prevention of counterfeit or suspect counterfeit part use and their inclusion in product(s) delivered to Mountain Aircraft Services, INC.

Counterfeit part prevention processes shall include:

- Training of appropriate persons in the awareness and prevention of counterfeit parts;
- Application of a parts obsolescence monitoring program;
- Controls for procuring product from original or authorized manufacturers, authorized distributors, or other approved sources;
- Requirements for assuring traceability of parts and components to their original or authorized manufacturers;
- Verification and test methodologies to detect counterfeit parts;
- Monitoring of counterfeit parts reporting from external sources;
- Quarantine and reporting of suspect or detected counterfeit parts.

B. The following requirements apply for all EEE Parts, Components, Assemblies and Systems procurements.

1. The Seller shall ensure all electrical, electronic, electro-mechanical and electro-optical component parts delivered and/or used in the manufacture of deliverable products are from the Original Equipment Manufacturer (OEM) / Original Component Manufacturer (OCM)/ Authorized Aftermarket Manufacture(AAM) or Authorized Franchised distributor and NGC approved Electrical/Electronic Distributors.

a. If supply chain traceability is not available, the Seller shall not accept the Buyer's PO or agreement without Mountain Aircraft Services, INC. authorization in accordance with the RC/I process outlined in SQ01.

2. Any Manufacturer or Distributor that provides Electronic Components, Assemblies, Subsystems or Systems shall have a third-party certified quality management system in accordance with one of the following industry standards: AS9100; AS9120; ISO9001; as defined in the contractual requirements.

3. The Seller shall maintain a documented Material Authenticity / Counterfeit Parts Prevention (MA/ CPP) process for the avoidance, detection, mitigation, disposition and reporting of Counterfeit Parts that is compliant with AS5553 and DFARS 252.246-7007 requirements (revision at the time of purchase order release) that documents;

a. the processes used for assuring that only authentic and conforming materiel is procured and

- b. the processes to be used for risk mitigation, disposition, and reporting
in the event any counterfeit material is encountered in its supply chain.

NOTE: The counterfeit protection plan is subject to Mountain Aircraft Services, INC. approval, and may be disapproved at any time during the effective time period of the authorized PO or agreement if the plan does not provide for an appropriate level of assurance for procuring material in compliance with the PO to Mountain Aircraft Services, INC. satisfaction.

4. The Seller shall impose appropriate contractual requirements on all tiers of its supply chain to ensure the substance of SQ43, AS 5553, DFARS 252.246-7007 and the Buyer's authorized PO/agreement are met.

5. Mountain Aircraft Services, INC. reserves the right to audit the Seller's MA/CPP process, and associated records, at the Seller's facility.

a. The Seller shall maintain record retention in accordance with PO/agreement requirements and make pertinent records available to the Mountain Aircraft Services, INC..

b. The Seller shall ensure that Mountain Aircraft Services, INC. and Mountain Aircraft Services, INC. customers have access to the Seller facilities and the facilities of its supply chain at all tiers, to verify compliance with Buyer requirements.

6. The Seller's MA/CPP process shall ensure it does not receive counterfeit parts into inventory, use them in manufacturing, or inadvertently sell them to other parties.

7. The Seller shall ensure parts are not used or reclaimed and misrepresented as new.

8. The Seller shall ensure that all occurrences where it has:

a. Acquired suspect counterfeit parts are reported to GIDEP

b. Provided suspect counterfeit parts related to its Mountain Aircraft Services, INC. contract and

c. Take appropriate corrective and preventive actions on all suspect counterfeit parts

9. Seller shall be a member of GIDEP, if eligible, and review and take appropriate corrective and preventive actions on all GIDEP alerts applicable to material offered for re-sale. This includes alerts for suspect/counterfeit conditions as well as routine technical issues.

a. If ineligible for GIDEP participation, the Seller shall screen other credible sources of counterfeiting information to avoid such purchase and use.

C. For Parts/Components/Assemblies/Systems procured from a Seller that is an Original Component Manufacturer (OCM), Franchised Distributor or Authorized Aftermarket Seller for that specific Part/Component.

1. The Seller shall provide material traceability documentation with each component being delivered. Minimum traceability requirements for electronic component parts shall include:

a. Clear identification of the name and location of supply chain intermediaries from the manufacturer to the direct source (OCM/OEM/ AAM/Franchised-Authorized/One-Tier Removed) of the product for the seller. Manufacturer name and address, manufacturer and/or Buyer's part number and dash number, batch identification for the item(s) such as date codes, lot codes, heat lot, serializations, or other identifications, Signature or stamp with title of seller's authorized personnel signing the certificate.

Note: Distributors shall, in addition to the above, include their company's certification for each part number shipped.

2. The Seller shall provide certification shall be provided for assemblies stating that all components are traceable to the OEM/OCM or Franchised Distributor.

D. For Parts/Components procured from a Seller that is not an Original Component Manufacturer (OCM), Franchised Distributor, Authorized Aftermarket Seller or if Supply Chain Traceability is unavailable, or suspected of being false, after acceptance of the PO or if Chain of Custody to Mountain Aircraft Services, INC. exceeds "One-Tier Removed" for that specific Part/Component.

NOTE: If after acceptance of the PO the Seller discovers that it is unable to comply with the supply chain traceability requirements of its PO/agreement (including electronic parts contained in procured electronic assemblies), The Seller shall contact the Buyer for further direction in accordance with the RC/I process outlined in SQ01.

1. The Seller shall demonstrate the capability to have all authenticity validation tests and inspections (e.g.: AS 6081, IDEA- STD-1010) performed and managed per the direction of Mountain Aircraft Services, INC. Mountain Aircraft Services, INC. reserves the right to disapprove the use of any facility for authenticity testing

2. The Seller shall meet minimum Mountain Aircraft Services, INC. authenticity validation requirements for procured electrical, electronic, and electro-mechanical (EEE) parts without traceability to the manufacturer are set forth below. The following standards may be replaced by equivalent specifications. The version of the applicable documents is the revision in effect as of the date of the purchasing agreement:

- a. AS6081, Fraudulent/Counterfeit Electronic Parts: Avoidance, Detection, Mitigation, and Disposition - Distributors
- b. MIL-STD-883, Test Method Standard- Microcircuits

c. IDEA-STD-1010, Acceptability of Electronic Components Distributed
in the Open Market

3. Standard validation shall include, but is not limited to:

a. Verification of procured product per SAE AS6081 section 4.2.6. 4. Augmented validation shall include,
but is not limited to:

a. Verification of procured product per SAE AS6081 section 4.2.6.

b. Except replace sample x-ray inspection with x-ray inspection of 100
percent of parts per Mil-Std 883 Method 2012.

c. Plus full parametric electrical test (100 percent of parts) at ambient
temperature specified per the applicable drawing, industry/military
requirements or manufacturer's data sheet (in that order of
precedence).

d. Plus Particle Impact Noise Detection (PIND) of parts with internal
cavities per Mil-Std-883 Method 2020 (100 percent of components).

e. Plus hermeticity test of sealed parts with internal cavities (fine and
gross leak per Mil-Std-883 Method 1014) (100 percent of parts).

5. The results of all verification tests and inspections and disposition about the
authenticity of the material shall be recorded. The record shall include the following:

a. Purpose of test

b. Name of individual performing test

c. Part number

d. Lot number and date codes

e. Device type

f. Device manufacturer

g. Country of origin

h. Test location

i. Tester hardware information, e.g., model number, serial number, etc.

j. Load board number

k. Parameters tested and temperature

l. Quantity tested

6. The Seller shall:

- a. Maintain verification records and results, including a copy of X-ray and digital photographs, for the parts that are subjected to the inspection and tests above.
- b. Not ship parts to Mountain Aircraft Services, INC. which fail these tests/inspections nor utilize such parts in circuit card assemblies or other products delivered to Mountain Aircraft Services, INC.
- c. Maintain a separate copy of validation results and disposition. Copies shall be provided to Mountain Aircraft Services, INC. in accordance with PO requirements or upon request.

~~SQ44 DFARS 252.225-7009 Specialty Metals~~

Guidance: A, and B apply when SQ44 is required.

- C. Sellers providing products containing specialty metals shall ensure the product is compliant with DFARS 252.225-7009, "Restriction on Acquisition of Certain Articles Containing Specialty Metals".
- D. Sellers shall take the proper course of action to meet the requirements of this clause in the products delivered to Mountain Aircraft Services, INC.. All government supply Purchase Order suppliers are subject to DFARS 252.225-7009, which is incorporated in Mountain Aircraft Services, INC. Terms and Conditions T-1, and included as an additional clause to T-2 for government commercial items per the DoD Specialty Metals requirement.

4.0 Acronyms

The following acronyms are used in this plan.

Acronym	Definition
AS	Aerospace Standard
AAM	Authorized Aftermarket Manufacturer
AQRPS	Automated Quality Requirements Planning System
CMMI	Capability Maturity Model Integration
CoC	Certificate of Conformance
CoT	Certificate of Traceability
CTF	Critical to Function
DFARS	Defense Federal Acquisition Regulation Supplement
DoD	Department of Defense
DSA	Defense Supply Agency
ECP	Engineering Change Proposal
EIDP	End Item Data Package
ESD	Electrostatic Discharge
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FOD	Foreign Object Debris
GIDEP	Government Industry Data Exchange Program
GSC	Global Supply Chain
IDEA	Independent Distributors of Electronics Association
ISO	International Organization for Standardization
MIL	Military
MRB	Material Review Board
MSDS	Material Safety Data Sheet
NASA	National Aeronautics and Space Administration
NDT	Non-Destructive Testing
NIST	National Institute for Standard Technology
OCM	Original Component Manufacturer
OEM	Original Equipment Manufacturer
QPL	Qualified Parts List
RC/I	Request for Change/ Information
SCAR	Supplier Corrective Action Request
SEI	Software Engineering Institute
SEM	Scanning Electron Microscope
SIN	Supplier Information Notice
UID	Unique Identification

VCA	Verification of Corrective Action
WIP	Work In Process

