

Magellan Aerospace, Winnipeg

BAL-QS-002

SUPPLIER QUALITY REQUIREMENTS

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Approval: Don Morris
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Approver: David Bartlett
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EFFECTIVITY: When specified on any Purchase Order issued after 2023-JUN-01. For all Purchase Orders issued prior to this date, the issue number in place at time of order placement shall apply.

Change Record Sheet

Issue	Description	Date	Author
29	QC 59 revised to include all dimensional characteristics	10-May-2017	D. Morris
30	QC 60 Revised to include GRP-0087	1-Jun-2017	D. Morris
31	Signing authority page 1 revised Section 5 Added "Use of non-conventional Manufacturing Methods" and "Foreign Object Prevention Program (FOD)" QC01 updated to incorporate flow-down as required by AS9100D section 7.1 QC 11 FAIR requirement clarified QC31 and 32: Updated MCS to read LCS. Updated FC-17 to read F-17 QC 48 Updated to include SQOP 01-01 QC 48-1 Added QC49 Updated to reflect new link to SABRe QC61: Added	2018-Dec-5	D. Bartlett
32	QC 49 Updated to reflect up-rev to SABRe 3	2019-Mar-27	B. Krahn
33	QC62 added for Airbus Supplier Requirements	2019-Jun-26	J. Moseley
34	QC31 & QC32 revised to require Certification review by Active CLCSR personnel	2019-Sep-04	D. Morris
35	Section 3: Definitions of A2 and A3 tools deleted. Section 3: Reference to A2 and A3 tools removed from Quality Plan section. Section 5: Reference to A2 / A3 tools and calibration stickers removed from the Calibration section and "Quality System Changes" section added. QC59 revised.	2020-Aug-13	B. Krahn
36	Update signing authority – Procurement; Quality Update QC42 Add QC48-2 Section 5:Correct and add Concession Application Form Section 5: Add statement under "Special Process"	2021-Aug-23	E. Pedroso
37	5.1.7 Nonconformance section updated 5.2.2 First Article Inspection section updated Appendix A: QCB3 updated QC49 updated to latest revision of SABRe QC61 updated QC63 added for AS13100 flowdown General re-format	2023-May-18	M. Brar

1.0 PURPOSE

To define the quality requirements to be met by the supplier in providing products and services to Magellan Aerospace, Winnipeg (MAW).

2.0 APPLICATION

The supplier shall meet the provisions of this document as invoked by the quality clauses or Procurement Quality Plan (PQP) specified in the Purchase Agreement. This completely revised document supersedes and replaces all previous issues of Quality Specification BAL-QS-002 and Quality Specification BAL-QS-001. If there is any conflict between Magellan Aerospace, Winnipeg Supplier Quality Requirements Manual, this document shall take precedence.

The supplier shall flow down the requirements of BAL-QS-002, and all specific requirements, to all sub-supplier/sub-tier suppliers

3.0 DEFINITIONS

Lot: A group of items of identical configuration submitted for inspection acceptance at one time and, unless otherwise specified in the item technical definition, complying with the lotting provisions of the traceability section in this document.

Nonconforming Material: Any item which deviates from the governing drawing and/or specification(s) and terms of the Purchase Agreement which cannot or will not be rectified within the scope of these or whose rectification process itself violates these.

Any item which has been subjected to a nonconforming process.

Nonconforming Process: Any process which deviates from drawing or specification requirements to the extent that it affects the quality of items subjected to it and/or renders any of its characteristics indeterminate.

Procurement Quality Plan (PQP): A Magellan Aerospace, Winnipeg issued document that defines all the quality requirements and controls, in lieu of quality clauses, for a part or family of parts provided by a specific supplier.

Purchase Agreement: The formal, legally binding agreement between Magellan Aerospace, Winnipeg and a supplier which defines the goods and/or services being procured and the terms and conditions of that procurement.

Quality Plan: A controlled document, in a suitable supplier format, which provides the necessary information for control of all phases of a manufacturing program, from contract award to product delivery. This

document shall be prepared and communicated to Magellan Aerospace, Winnipeg at the earliest stage possible during the contract implementation for Magellan Aerospace, Winnipeg's concurrence. Once the First Article has been approved by Magellan Aerospace, Winnipeg, the Quality Plan is considered frozen and all changes must be submitted to Magellan Aerospace, Winnipeg for approval prior to implementation. Quality Plans will form part of the Purchase Agreement.

As a minimum the Quality Plan shall provide the following information:

- a) All discrete manufacturing sequence of steps including identification of software (e.g., CAD files, NC tapes...) and all special processes and their sources
- b) An inspection plan to account for all design characteristics with their point of inspection in the manufacturing sequence. The Inspection Plan shall identify the methods including all software and electronic data files intended for acceptance of product
- c) A First Article plan for independent verification of all characteristics and design requirements
- d) An Acceptance Test Plan for final product verification of acceptability to all deliverable technical and quality requirements including interface, functional and form characteristics

Special Process: A process whose results cannot be directly examined to establish full conformance. Assurance of satisfactory conformance depends on evidence generated during the process. Examples of such processes include but are not limited to, welding, heat treatment, chemical deposition, conversion or reduction, Non Destructive Testing, etc.

Sub-supplier/Sub-tier: Any person or company who undertakes to supply a part of the work defined by the Purchase Agreement as a service to the supplier.

Supplier: Any person or company who undertakes to supply goods and/or services to Magellan Aerospace, Winnipeg.

Technique Sheet: A part number specific document that defines the control requirements for special processes.

4.0 ASSOCIATED MATERIAL

Quality Specifications

BAL-QS-003 Workmanship Standards

5.0 REQUIREMENTS

Each line item on a Purchase Agreement for items deliverable to Magellan Aerospace, Winnipeg will contain a part number, a technical description and either a series of quality clauses per this specification or reference to a PQP.

The technical description may list the controlling engineering definition(s) with revision level(s) or it may identify an Analysis Sheet with its revision level.

- An Analysis Sheet clarifies or creates the definition of the deliverable item, usually by expanding or limiting the terms of the design definition. This document is issued and identified either as a “Sub Contract Analysis” Sheet (SCA) or “Purchase Analysis Sheet” (PAS) and is governing when referenced in the technical description of any line item on the Purchase Agreement.

When BAL-QS-002 or portions of it are called out on Purchase Agreements for products and services supplied to our customer, it is governing on the suppliers and their sub-tiers as defined herein and on the Purchase Agreement. The requirements are broken into general and specific categories. Specific requirements define the product controls and shipment documents that may apply to individual line items on the Purchase Agreement.

- Specific Quality requirements may be incorporated into a product specific Procurement Quality Plan (PQP).

5.1 General Requirements

The supplier shall meet all of the following general requirements when clause QC01 or a PQP form part of the purchase agreement.

5.1.1 System

In addition to the conditions given in the following section “Directory Listing”, the supplier’s system of quality must, as a minimum, address and satisfy the governing elements of this document.

5.1.2 Directory Listing

Based on an assessment by Magellan Aerospace, Winnipeg’s Quality department and continuous monitoring of performance, the status of a supplier is maintained on the Supplier Directory Listing. Magellan Aerospace, Winnipeg must be immediately notified in writing of any changes affecting this listing.

- Suppliers and sub-tiers must have any required third party approvals implicit to the Purchase Agreement and the associated documents in supply of the products and services.

5.1.3 Sub-tier Suppliers

No portion of work contracted by Magellan Aerospace, Winnipeg may be sub-contracted by the supplier without written consent by Magellan Aerospace, Winnipeg.

Suppliers shall flow down all applicable quality requirements to their sub-tiers and ensure they have the requisite approvals.

5.1.4 Access

Suppliers and their sub-tiers shall provide access to representatives of Magellan Aerospace, Winnipeg, its customers and appropriate regulatory authorities, for the purpose of auditing for system compliance and conformance of products and services.

5.1.5 Traceability

All items on Purchase Agreements are subject to Traceability and Inspection Batch (Lot) Control. They are to be segregated into batches (lots) of uniform quality which are inspected as a unit for acceptance and are traceable to all batches (lots, heats) of raw materials and their sources and all process operations performed as a single continuous operation.

Quality records substantiating this traceability and batch control must be traceable from receipt at Magellan Aerospace, Winnipeg back to the origin of the material through all intermediary stockists, processors, distributor's, etc.

5.1.6 Sample Inspection

100% inspection of all product characteristics is required, unless otherwise agreed by in writing by Magellan Aerospace, Winnipeg.

5.1.7 Nonconformance

5.1.7.1 Concession Application

Consideration may be given to allow shipment of nonconforming material to Magellan Aerospace Winnipeg on a dispositioned concession application. Nonconforming material shall be identified and a concession application (FORM05314 / 05315 or FORM12545) submitted to Magellan Aerospace, Winnipeg for disposition.

Nonconforming material shall not be shipped without a dispositioned concession application from Magellan Aerospace, Winnipeg.

- A copy of the dispositioned concession application from Magellan Aerospace, Winnipeg shall accompany the shipment.
- The certificate of conformance shall reference the dispositioned concession application.
- Any nonconforming material shipped on a dispositioned concession application shall be segregated, conspicuously marked and traceable to the dispositioned concession application.

- Product dispositioned as scrap shall be conspicuously and permanently marked, or positively controlled, until physically rendered unusable.

5.1.7.2 Corrective Action

Robust corrective action shall be provided by the supplier for each submission of a concession application. Supplier corrective action will be written on the supplier's internal root cause corrective action paperwork and shall be noted and traceable to the concession application. A copy of the supplier's internal root cause corrective action shall be appended to the concession application. Supplier shall use the AS13000 Problem Solving Requirements process when responding to Magellan request for corrective and preventive action.

When the supplier's corrective action program is ineffective in reducing or eliminating the correctable root causes of nonconformance, Magellan Aerospace, Winnipeg may elect to reject items or lots containing non-conforming material.

Concession applications submitted without robust corrective action will be rejected.

Supplier shall maintain records of nonconforming material, dispositions, assignable causes, corrective actions and effectiveness of corrective action.

5.1.8 Records

A record can be written, generated, or stored in either hard copy or electronic media. Regardless of the type of record or medium, Quality records share the following characteristics.

- a) Legible and readily identifiable to the material, product, or service for which they have been issued. Handwritten records shall be in ink.
- b) Any alterations made will be by crossing out the area to be changed, initialing, and dating the change. Any alteration will be in ink and will be made by authorized personnel only. A record of any changes made to an electronic quality record will be retained.
- c) Will be stored in a secure and environmentally protected space, which will minimize deterioration or damage and which will prevent their loss.
- d) Unless otherwise specified in the purchase order or documents invoked by the purchase order, Quality records will be retained for a period of twenty five (25) years after completion of purchase order. Written authorization/notification required from Magellan Aerospace, Winnipeg Quality Manager before any quality records are destroyed.
- e) Shall be readily accessible and retrievable within twenty four hours, upon request.

5.1.9 Workmanship

Unless otherwise specified in the purchase agreement and associated documents, all supplied products shall meet the workmanship requirements of BAL-QS-003.

5.1.10 Calibration

All equipment used for measurement and/or acceptance of product must be calibrated and bear evidence of a valid calibration traceable to national standards.

All tooling supplied by Magellan Aerospace, Winnipeg for use on Purchase Agreements must comply with the following provisions as applicable:

- a) All tooling will have affixed a Magellan Aerospace, Winnipeg tooling identity tag which registers the tool in Magellan Aerospace, Winnipeg's tooling control system via serial number
- b) Tool surveillance shall be recorded and supplied to Magellan Aerospace, Winnipeg on form "FORM12547" when requested

5.1.11 Certification and Inspection Test Documentation

Each batch/lot of material submitted for Magellan Aerospace, Winnipeg's acceptance must be accompanied by the documentation specified on the Purchase Agreement. All inspection and test documentation shall be traceable to the lot of material shipped. Each Certificate of Conformance (Release Note) shall be legible and traceable to the company's authorized release personnel and formatted to provide the following:

- a) The supplier identity
- b) The purchase agreement number
- c) The part number on the purchase agreement
- d) When applicable, the controlling drawing or specification with revision status
- e) Lot/batch traceability and quantity
- f) Concessions (waivers)

When the First Article Inspection control is applicable, an FAI report must be attached and the FAI parts tagged for Magellan Aerospace, Winnipeg verification.

- If applicable evidence of source substantiation to the current configuration from the design authority is acceptable in place of an FAI report.

5.1.12 Class 3 Fastener Manufacturers Inspection and Test Report

This report must be held on file at the supplier or manufacturer and be available to Magellan Aerospace, Winnipeg on request for all class 3 fasteners. It shall provide the following:

- a) A complete manufacturer's certificate package including all raw material and special process certifications
- b) An Inspection and Test Report for all external threads which must include, as a minimum, the following characteristics (Ref: MIL-S-8879)
 - "Go" functional diameter size
 - pitch diameter size
 - major diameter size
 - minor diameter size
 - root radius (when applicable)

5.1.13 Counterfeit Part Prevention

The seller shall not deliver products that contain counterfeit items (such as, but not limited to, software, material and electrical/mechanical parts/assemblies). SAE AS5553 provides guidance for counterfeit prevention.

5.1.13 Use of Non-conventional Manufacturing Methods

Unless required by the drawing, specification, or contract, the supplier may not use laser or abrasive water jet cutting or abrasive water jet drilling on products scheduled for delivery to Magellan Aerospace Winnipeg without prior written authorization by Magellan Aerospace Winnipeg.

5.1.14 Foreign Object Prevention Program (FOD)

The supplier shall have in place a system to control, detect and prevent FOD. SAE AS9146 provides guidance for FOD.

5.2 Specific Requirements

The following controls apply when they form part of the Purchase Agreement via a PQP or the quality clauses from Appendix C. If there is a conflict between the PQP and any clause called out on the Purchase Agreement, the PQP is governing.

5.2.1 Suppliers' Quality Plan

In order to ensure control and communication of quality planning during all phases of the manufacturing from development to product delivery, the supplier is required to prepare and maintain a Quality Plan as a controlled document. The Plan shall be submitted for Magellan Aerospace, Winnipeg's concurrence, to an agreed timeline at specific phases of contract performance or whenever significant changes are made. The Plan shall be

finalized for first article submission and, once the first article is approved by Magellan Aerospace, Winnipeg, no significant changes, including changes to sub-tier sources, can be implemented without Magellan Aerospace, Winnipeg's approval. Magellan Aerospace, Winnipeg shall be notified of all minor changes.

5.2.2 Suppliers' First Article Inspection

- a) First article control is required for all Magellan Aerospace, Winnipeg and customer proprietary items. Unless otherwise agreed, no parts may be shipped unless there is a valid Magellan Aerospace, Winnipeg approved first article inspection report or it is being submitted with the shipment as first off production. A first article supplement is required:
 - Whenever any change creates new characteristics or may affect the validity of previously reported characteristics;
 - When a characteristic does not meet its requirements;
 - When the process is changed;
 - After a lapse in production of two or more years.

➤ Parts such as castings and forgings require that test bars be submitted along with the first article part(s).
- b) The supplier shall identify and tag the items used for First Article verification. All features shall be verified by a method that is completely independent of the method of manufacture or special tooling intended for acceptance of product unless specified in the written instructions from Magellan Aerospace, Winnipeg. Unless otherwise specified, the First Article Inspection Report shall be in AS9102 format.
 - If applicable, identification of the Quality Plan with issue number
 - A full accounting of all configuration elements and their definitions with revision status
 - Test certificates for all raw materials and all other testing requirements
 - Special process certifications, including NDT, as approved sources and verified technique sheets.
 - Variable data measurements for all characteristics reported by characteristic, drawing zone, actual measurements, method of measurement and all out of tolerance amounts
 - All non-measurable characteristics listed on the design definition must also be accounted for

5.2.3 Tooling

As evidence of completion of tooling line items in a purchase agreement, the supplier shall process Form 10044 per instructions on the reverse of the form to Magellan Aerospace, Winnipeg.

5.2.4 Documentation

Each lot of an item shall be accompanied by the documents required by the quality clauses in the Purchase Agreement or as required by any requirement of this document. Their format shall satisfy the clause requirement and the provisions of "Certification and Inspection Test Documentation" section under "General Requirements".

5.2.5 Government Quality Assurance

When Government Quality Assurance at source is required, the supplier is to notify promptly the Government representative, who normally services the facility so that appropriate planning for Government Quality Assurance may be accomplished. The prime contract number referenced on the Purchase Agreement shall be referenced on all such communications.

5.2.6 Verification and Acceptance at Source

When items on the Purchase Agreement are subject to source verification and acceptance by Magellan Aerospace, Winnipeg or its duly authorized representatives at the supplier's facility, the supplier shall contact the Magellan Aerospace, Winnipeg Purchasing Department at least 5 working days in advance of shipping to arrange for a representative of Magellan Aerospace, Winnipeg to be on hand. The Magellan Aerospace, Winnipeg representative may choose to verify documentation, witness re-inspection or re-test of a selected sample, or to physically inspect/test the product in question. This requirement extends to the provision of such assistance, personnel, and equipment as deemed necessary to perform the stated activities. Where quality clauses 5 or 11 are also a requirement of this Purchase Agreement, the FAI report shall be presented to the Magellan Aerospace, Winnipeg representative upon his/her first visit. Such surveillance shall in no way relieve the supplier of the total responsibility for the performance to the Purchase Agreement or for the quality of the product in question. A copy of the source inspection report signed by the Magellan Aerospace, Winnipeg representative shall be forwarded to Magellan Aerospace, Winnipeg along with the shipment.

5.2.7 Accredited Items

A part number which has been consistently supplied successfully by a specific supplier and has been given direct-to-stock (DTS) status, or a part number that has a Magellan Aerospace, Winnipeg-approved first article inspection report (FAIR) and has been released by a delegated supplier quality representative.

For accredited items, a quality representative of the supplier shall have been trained and authorized by Magellan Aerospace, Winnipeg to perform quality verification at the supplier's facility. This representative will be provided a Magellan acceptance stamp and is authorized to stamp all documents on

completion of the prescribed quality verification process. Such items will be received directly into Magellan Aerospace, Winnipeg stores subject to periodic supplier audit and/or quality verification audit at Magellan Aerospace, Winnipeg.

Accredited items will have FAI verification conducted at source by a Magellan Aerospace, Winnipeg representative.

5.2.8 Special Processes

Special processes, including non-convention machining techniques may not be employed, unless specified by the product definition or authorized in writing by Magellan Aerospace Winnipeg.

NADCAP approval is the minimum requirement for all special processes unless otherwise stated on the MAW purchase order.

5.2.9 Quality System Changes

The supplier shall notify Magellan Aerospace, Winnipeg in writing, within ten (10) days of any of the following:

- Change in its quality system status.
- Loss of third party registrar's certification status.
- Change in Seller's quality organization, process or procedures that are known to affect or could potentially affect conformity of any Item.
- Adverse action taken by a US Government entity, Third Party Registrar, International Government Agencies, or Nadcap to include, but is not limited to, any of the following:
 - Issuance of any major Level II or Level III Corrective Action Request (CAR) associated with Magellan Aerospace, Winnipeg items, Quality Management System or processes associated with those items.
 - Issuance of a major finding by a Third Party Registrar.
 - Suspension of Government Source Inspection (GSI).

APPENDIX A

QUALITY CLAUSES

QCB1: A first article inspection report (FAI), documenting 100% inspection of at least one part from the first lot produced, must accompany the first shipment of this part number. The FAI report must list all drawing characteristics (i.e., dimensions, notes materials/process requirements, etc...), as well as any additional O.P.S.P. (or equivalent Magellan Aerospace, Winnipeg document) requirements. The report must reflect actual dimensions obtained for each characteristic.

QCB2: The items procured by this purchase order are subject to the quality requirements of Boeing's BQMS D6-82479. The supplier shall provide access to representatives of Magellan Aerospace, Winnipeg Aerospace or the prime contractor, Boeing Aircraft, for the purpose of auditing for system compliance and conformance of products and services to this requirement.

All special processes shall be performed by approved processors listed in Boeing document D1-4426, approved process sources. Supplier shall use the "BCAG (BAC, BSS) Rev Level" link in D1-4426 to access the <http://www.boeing.com/companyoffices/doingbiz> website and confirm the revision level of all applicable specifications in effect. Contact Magellan Aerospace, Winnipeg for assistance in obtaining the current specification.

The certificate of conformance must confirm that all requirements of the purchase order were met.

In the event of an engineering configuration change or method-of-manufacture change, a supplemental FAI report, documenting all characteristics affected by the change, must be completed and forwarded to Magellan Aerospace, Winnipeg with the first shipment incorporating the change.

Nonconforming material may not be shipped without written authorization from Magellan Aerospace, Winnipeg. Any such items will be identified on a Magellan Aerospace, Winnipeg concession application form and submitted to Magellan Aerospace, Winnipeg for disposition.

QCB3: The items procured by this purchase order are subject to the quality requirements of Boeing Long Beach Division quality specification DQS100.

QC01: The supplier shall meet all governing Quality requirements of BAL-QS-002 and any associated Procurement Quality Plan as invoked by the Quality Clauses listed against each line item of the Purchase Order. The Supplier must also ensure persons are aware of their contribution to product and services conformity, safety, and the importance of ethical behavior.

QC02 and QC03: cancelled, replaced by QC01.

QC04: The supplier shall arrange for Government Quality Assurance.

QC05: The supplier shall prepare and maintain a Quality Plan. Prior to production, the plan or significant changes thereto shall be submitted, to an agreed schedule, for Magellan Aerospace, Winnipeg's concurrence. Magellan Aerospace, Winnipeg to approve the Quality Plan, using document "Supplier Manufacturing Plan Review/Approval Memo" /Form10692. After the first article is approved, any changes must be approved by Magellan Aerospace, Winnipeg prior to implementation.

QC06: All special processes and their sources shall be approved in writing either by Magellan Aerospace, Winnipeg or the originator of the controlling specification(s).

QC07: A part specific technique sheet for all special processes shall be submitted for Magellan Aerospace, Winnipeg's approval prior to Magellan Aerospace, Winnipeg acceptance of product.

QC08: Each lot shipped shall be accompanied by the supplier's Certificate of Conformance. The Certificate of Conformance shall identify and certify use of any Magellan Aerospace, Winnipeg supplied material. Certification and/or test reports for all materials and special processes provided by the supplier or sub-tier suppliers shall be appended.

QC09: All shipments are to be verified and accepted at the supplier's facility by Magellan Aerospace, Winnipeg personnel prior to shipment. Evidence of this must accompany the shipment.

QC10: As the approved manufacturer or an authorised distributor, the Packing Slip will be accepted as evidence of conformance for proprietary commercial products as long as packaging and/or material identification markings assure that the products are those of the manufacturer and/or governing industry standard or specification stated in the Purchase Order. Substitutions are not permitted.

QC11: A valid and approved First Article Inspection Report (FAIR), in accordance with AS9102, is required to the current configuration for the item. The FAIR or evidence of source substantiation must accompany the first shipment and any affected by configuration or manufacturing changes. Castings and forgings require two (2) test bars with the FAI part submission.

The completed FAIR may also serve as an inspection plan.

QC12: Each lot shipped shall be accompanied by the supplier's Certificate of Conformance.

QC13: Each lot shipped shall be accompanied by the supplier's and the manufacturer's Certificate of Conformance.

QC14: Each lot shipped shall be accompanied by the supplier's Certificate of Conformance which shall list all Special Processes performed and, if applicable, any sub-tier source identity and number of the sub-tier certification held on file at the supplier's facility. It shall also list the part number, lot identify, and quantity of any Magellan Aerospace, Winnipeg supplied material.

QC15: cancelled.

QC16: Each item shipped shall have a unique serial number, which is absolutely traceable to the supplier's shipment documentation and quality records.

QC17: Each lot shipped shall be accompanied by the supplier's Certificate of Conformance and a Material (Mill) Test Report, which provides traceability to the material source and the testing facility. All metallic material documents shall be traceable to the Mill Heat number. All metallic material documents shall be traceable from receipt at Magellan Aerospace, Winnipeg back to the origin of the material through all intermediary stockists, processors, distributor's, etc.

All bar stock, extrusions, shapes, plate and sheet stock, require physical identification markings such as, line marking or ribboning per AMS 2806 (AMS2809 for Ti alloys). The marking must include material specification number including revision level if any, heat number, nominal size and manufacturer's identification and heat lot number.

QC18: The acceptance test materials specified in the item technical definition shall accompany each lot shipped.

QC19 and QC20: cancelled, replaced by QC18.

QC21: cancelled.

QC22: cancelled.

QC23: cancelled.

QC24: Each item shipped requires Ministry of Transport (MOT) certification and a supplier's certificate of conformance.

QC25: Each item shipped requires Federal Aviation Administration (FAA) certification and a supplier's certificate of conformance.

QC26: Material shall be segregated to preserve lot identity and shall be identified with a manufacturing date and lot number in addition to all other marking requirements.

QC27: All lots shipped and their associated documents shall identify the Shelf Life control data which shall include the manufacture date and shelf life period or the material specification control data. 75% minimum existing shelf life is required on receipt at Magellan Aerospace, Winnipeg.

QC28: All lots shipped and their associated documents shall identify the Shelf Life control data which shall include the manufacture date and shelf life period or the material specification control data. 50% minimum existing shelf life is required on receipt at Magellan Aerospace, Winnipeg.

QC29: On completion of tooling, Form 10044 is to be submitted to Magellan Aerospace, Winnipeg in accordance with instructions on the reverse of the form.

QC30: cancelled.

QC31: All items supplied must be all material controlled and certified to the LCS requirements of Pratt and Whitney LCS Manual section F-17. All Certification documents to be reviewed on receipt at MAW by active CLCSR Personnel.

QC32: All items supplied must be controlled and certified to the LCS requirements of Pratt and Whitney LCS Manual section F-17. All Certification documents to be reviewed on receipt at MAW by active CLCSR Personnel.

QC33: All lots/items shipped shall be accompanied by the customer's document which provides material traceability.

QC34: cancelled.

QC35: Prior to shipment, the supplier shall submit and obtain Magellan Aerospace, Winnipeg confirmation of acceptance of their inspection record performed to the IMS stated in the Purchase Order. All shipments shall be accompanied by this confirmation and the supplier's Certificate of Conformance.

QC36: The supplier shall comply with all quality requirements in the item Procurement Quality Plan.

QC37: cancelled.

QC38: Each lot shipped shall be accompanied by the supplier's Certificate of Conformance, (C of C). The Certificate of Conformance (Release Note) shall be legible and traceable to the company's authorized release personnel. Information to be provided on the C of C will be the supplier's identity, the purchase agreement number, the part number on the purchase agreement, the controlling drawing or specification with revision status if applicable, the lot/batch traceability, quantity, and any concessions (waivers).

QC39: Parts shall be produced using the latest PWC approved process, tooling (pattern), and x-ray techniques. Parts shall be audited by PWC under PWC Non-destructive Test Control at Source (NDTCS) and/or Radiography Audit Control at Source (RACS) as applicable. Parts shall be released by a PWC Delegate Quality Control Representative (DQCR). The Certificate of Conformance shall include the following:

- A. a statement that, "Declare the latest P&WC approved process control number(s) as applicable or evidence (AVQAS stamp) that a P&WC approved delegate verifies process compliance";
- B. the NDTCS and/or RACS stamp, as applicable; and
- C. the DQCR stamp.

QC40: FAIR is required with first shipment. Fairs' must be performed in accordance with Rolls-Royce plc specification SQM 008.

QC41: This is an accredited item; all documentation shall bear the Magellan stamp of a delegated supplier quality representative. A Magellan Aerospace, Winnipeg-approved "First Article Inspection Report" must be on file.

QC42: Quality requirements of Leonardo Helicopter's 'QRS01 Quality Requirements for Suppliers' and associated modules are applicable to this order.

QC43: The items procured by this purchase order (PO) are intended for use in a General Electric Aircraft Engine (GEAE) product. The items must be compliant to GEAE specification S-1000. The supplier shall provide access to representatives of Magellan Aerospace, Winnipeg or the prime contractor, GEAE, for the purpose of auditing for system compliance and conformance of products and services to this requirement.

When requested per QC11, a First Article Inspection Report (FAIR) shall be provided complying with the requirements of GEAE specification S-1002. The FAIR may be prepared to AS9102 format provided all requirements of S-1002 for compliance are met. When clause QC11 is invoked, the First Article Requirement may only be waived (in writing) by the delegated Supplier Quality Representative (DSQR) approving the PO when circumstances allow.

Latest revision of S-1000 Revision to be utilized.

QC44: The items procured by this Purchase Order are under Source Substantiation (SS) control. Material and special processes supplied must meet the applicable sections of S-1000 for SS controlled items. S-400 testing is required for all raw materials as specified in S-1000. The original (not copies) of all required independent laboratory certifications must be kept on file with the record retention requirements of S-1000. When requested, the original certificate must be made available within three (3) days.

Latest revision of S-1000 Revision to be utilized.

QC45: Direct or comparison measuring instruments supplied; must be accompanied by a Calibration Certificate issued by an approved calibration laboratory registered to ISO.IEC DIS 17025.

QC46: A Tool Inspection report providing variable data for all design features to be submitted to the buyer for review by MAW personnel prior to shipment, evidence of the review to accompany shipment.

QC47: Weld wire supplied must be controlled to Pratt & Whitney MCL Manual, Section FC-53.

QC48: Articles being procured are for UTC-Member end use. Compliance with UTC specification ASQR- 01 and SQOP 01-01 is required. This requirement must be flowed down to any associated sub-tiers.

QC48-1: Articles being procured are for Pratt & Whitney Canada end use. Compliance with UTC specification ASQR-01, P&WC specification SQOP 01-01 is required. This requirement must be flowed down to any associated sub-tiers.

BAL-QS-009 shall be used to determine compliance to those requirements of ASQR-01 and SQOP 01-01 which go beyond AS9100 requirements and Magellan Aerospace Winnipeg supplier quality requirements.

QC48-2: The supplier will prepare inspection checklist that will list all dimension characteristics shown on the MAW drawing and indicate by an acceptance stamp or signature that the dimension/characteristics are acceptable. The tool/measuring instrument used to check each dimensions/characteristics will be listed next to each characteristics. Inspection documentation must contain Foreign Object damage (FOD) check.

QC49: Compliance with **the latest revision of** Rolls Royce specification SABRe is required; a current version of this specification is available at <https://suppliers.rolls-royce.com/GSPWeb/> Under Supplier Documents. This requirement must be flowed down to any associated sub-tiers.

QC50: Requirements of SAE AS9100 apply; any exceptions must be agreed in writing by MAW.

QC51: Requirements of ISO 9000 apply; any exceptions must be agreed in writing by MAW.

QC52: Requirement of SAE AS9120 apply; any exceptions must be agreed in writing by MAW.

QC53: BAE Systems is the contract end user, in addition to BAL-QS-002 the following requirements apply;

- BAE/AG/QC/SC1 (Parts 1 to 7)
- BAES-JSF-QMS-141-03-DV

QC54: Requirements of Lockheed Martin Aerospace's Appendix QX are applicable to this item.

QC55: For Electrostatic Discharge Sensitive Parts, the Supplier shall document and implement an ESD Control Program in accordance with ANSI/ESD S20.20. Parts shall be properly packaged and identified as required in ANSI/ESD S20.20. All parts shall be placed in conductive or static-dissipative packages, tubes, carriers, conductive bags,

etc., for shipment. The packaging shall be clearly labeled to indicate that it contains electrostatic sensitive parts and the level of sensitivity, if it is below 100 volts. Electrical parts that may be used or shipped in conjunction with ESD sensitive parts shall be treated as ESD sensitive. For Non-ESD Sensitive parts, the above precautions are deemed not applicable.

QC56: EEE Single Lot / Date Code

Items provided under this Purchase Order shall have a single lot/date code. The Supplier shall obtain authorization of Magellan's purchasing representative, via a PO amendment request, prior to shipping goods that do not meet this single lot/date code requirement. When mixed lot/date codes are authorized, i.e. PO amended to list them as separate line items; the Supplier shall mark the individual part containers with the quantity and lot/date code.

QC57: The supplier shall meet all governing quality requirements of BAL-QS-006 Supplier Product Self-Release.

QC57-1: After the first article lot has been accepted by Magellan Aerospace, Winnipeg (MAW), subsequent shipments may be inspected by an MAW authorized third party. Suppliers shall maintain a record of all products presented for authorized third party inspection. Record to include part number, quantity, date and name of third party representative that was used. The record shall be made available upon request.

QC58: The supplier shall meet all governing quality requirements of BAL-QS-007.

QC59: A valid and approved First Article Inspection Report (FAIR), in accordance with AS9102, is required to the current configuration for the item.

When agreed with MAW, the supplier shall contract a 3rd party inspection source for re-verification of all dimensional characteristics for first article parts. Dimensional re-verification shall be performed by an ISO/IEC 17025 or AS9100 accredited source. All sources for dimensional re-verification shall be approved in writing by MAW.

QC60: Aircelle is the end user. In addition to BAL-QS-002 the supplier shall comply with Aircelle quality requirements specified in BAR0049 and GRP-0087. This specification is available at <https://www.safran-nacelles.com/suppliers>

QC61: Each lot shipped shall be accompanied by supplier's Certificate of Conformance.

The supplier's Certificate of Conformance shall list all the special processes performed by the supplier or their Magellan Aerospace, Winnipeg approved sub-tier. The certification for all special processes provided by the supplier or sub-tier shall be provided and shall be traceable to the supplier's Certificate of Conformance.

Material (mill) test reports which provide traceability to the material source and testing facility shall be provided. All documents shall be traceable to the Mill Heat number.

QC62: Compliance with all applicable Airbus Supplier Requirements is required. These requirements are defined by ASR Baseline directives A1500 to A1506 and must be flowed down to any associated sub-tier suppliers.

QC63: Supplier shall follow the latest revision of AS13100 – Quality Management System Requirements for Aero Engine Design and Production Organizations. A full or partial PPAP (Production Part Approval Process) package may be required. When this quality clause is listed on the purchase order, vendor shall follow NPI (New Product Introduction) and APQP (Advance Product Quality Planning) processes as per AS13100.