

Aerospace Supplier Quality Requirements	
Author: Enterprise Supplier Quality	Issue Date: April 7, 2025
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1.0 PURPOSE/SCOPE

- 1.1 The requirements of this document apply to all suppliers that furnish product, material, processes, or product related services to Collins Aerospace regardless of supplier’s industry, regulatory accreditation, or certification status. Supplier shall be responsible for ensuring that all members of their supply chains comply with the applicable requirements set forth herein.
- 1.2 Suppliers shall consult Appendix 1 and 2 to determine which provisions of this document apply based on the products and services provided by supplier and that of any member of their supply chain.
- 1.3 The requirements herein are supplementary to industry requirements referenced in section 5.0.
- 1.4 When this document is referenced in Collins Aerospace purchase order requirements or other supplier agreements, suppliers and their sub-tier suppliers are responsible for compliance to all applicable requirements herein (reference Appendix 2).
- 1.5 For guidelines on implementing supply chain best practices, reference IAQG Supply Chain Management Handbook (IAQG SCMH).
- 1.6 Collins Aerospace Strategic Business Unit (SBU)/sites reserve the right to apply additional **or alternative** requirements, as applicable, which can be found at the following links:
 - For RTX Terms & Conditions visit: <https://www.rtx.com/suppliers/purchase-terms-and-conditions>
 - For Collins Aerospace **ASQR-01 forms and** SBU/site documents visit:
 - <https://portal.rockwellcollins.com/web/suppliers/utc-supplier-docs>
 - <https://portal.rockwellcollins.com/web/suppliers>
 - <https://suppliers.utc.com/Pages/Home>
 - <https://www.rtx.com/suppliers/United-Technologies-Suppliers/United-Technologies-ASQRD>
 - The Supplier Quality Resource Portal provides resources ("how to" recordings & documents) related to Quality risk mitigation tools/processes, such as Advanced Product Quality Planning (APQP), Production Part Approval Process (PPAP), Supplier Managed Work Transfer, Zero Defect Plan (ZDP™), along with other topics and can be found at: <https://portal.rockwellcollins.com/web/suppliers/supplier-quality-training-welcome>

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2.0 ROLES AND RESPONSIBILITIES

2.1 Suppliers shall comply with the latest revisions of this procedure (refer to Appendix 2 for applicability) and Collins Aerospace SBU/site requirements.

- Suppliers shall establish compliance within 90 days of the document effective date unless otherwise specified in a Collins Aerospace publication notification. COL-FRM-0045 and COL-ASQR-FRM-0005 may be used to perform a compliance review for gaps.

2.2 The supplier shall ensure they have the latest revisions of all the documents specified within this document and referenced on the purchase order.

2.3 Collins Aerospace verification activities performed at any level of the supply chain does not absolve the organization of its responsibility to provide acceptable processes, products, and services and to comply with all industry requirements.

2.4 When requirements within this document are not directly applicable to Distributors, but still applicable to the product being supplied (refer to Appendix 2), the Distributor is responsible to flow these requirements down to their suppliers and ensure oversight and compliance.

3.0 REFERENCES

DOCUMENT NUMBER	DOCUMENT TITLE
AC7004	Nadcap Audit Criteria for Aerospace Quality System
AC7006	Nadcap Audit Criteria for Accreditation to ISO/IEC 17025
AS13001	Delegated Product Release Verification Training Requirements
AS5553	Counterfeit Electrical, Electronic, and Electromechanical (EEE) Parts; Avoidance, Detection, Mitigation, and Disposition
AS6174	Counterfeit Material; Assuring Acquisition of Authentic and Conforming Material
AS/EN/JISQ 9100	Quality Management Systems - Requirements for Aviation, Space, and Defense Organizations
AS/EN/JISQ 9120	Quality Management Systems – Requirements for Aviation, Space, and Defense Distributors
AS9102	Aerospace Series - First Article Inspection Requirement
AS9103	Aerospace Series – Quality Management Systems - Verification Management of Key Characteristics

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DOCUMENT NUMBER	DOCUMENT TITLE
AS9115	Quality Management Systems - Requirements for Aviation, Space, and Defense Organizations - Deliverable Software
AS9117	Delegated Product Release Verification
ARP6328	Guideline for Counterfeit Electrical, Electronic, and Electromechanical (EEE) Parts; Avoidance, Detection, Mitigation, and Disposition Systems
AS6081	Counterfeit Electrical, Electronic, and Electromechanics (EEE) Parts: Avoidance Detection, Mitigation, and Disposition – Independent Distribution
AS9125	Aerospace Series - Non-Deliverable Software Requirements
AS9138	Aerospace Series - Quality Management Systems Statistical Product Acceptance Requirements
AS/EN/JISQ 9145	Aerospace Series - Requirements for Advanced Product Quality Planning and Production Part Approval Process
AS/EN/JISQ 9146	Foreign Object Damage (FOD) Prevention Program – Requirements for Aviation, Space, and Defense Organizations
AS9162	Aerospace Operator Self-Verification Programs
ASQR-01 Form 4	Supplier Work Transfer Request
ASQR-01 Form 7	Delegated Quality Representative (DQR) Candidate Application
ASQR-01 Form 8	Delegated Quality Representative (DQR) Letter of Agreement
ASQR-01 Form 9	Distributor Survey
ASTM D3951	Standard Practice for Commercial Packaging
CAA UK Form 1	Authorised Release Certificate
COL-ASQR-FRM-0002	Supplier Process Change Notification
COL-ASQR-FRM-0003	Supplier Request for Information (SRI)
COL-ASQR-FRM-0005	Supplier Compliance Matrix
COL-ASQR-FRM-0006	Supplier Notification of Potential Quality Escape (NOPQE)
COL-ASQR-WRK-0001	Supplier First Article Inspection FAI Requirements

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DOCUMENT NUMBER	DOCUMENT TITLE
COL-FRM-0045	QMS Supplier Audit Checklist
COL-FRM-0087	Quality Control Action Requirements
COL-FRM-0105	Applicable Special Process Requirements
DFARS 252.246-7007	Contractor Counterfeit Electronic Part Detection and Avoidance System
DFARS 252.246-7008	Sources of Electronic Parts
EASA Form 1	EASA Part 21, Appendix 1, EASA Form 1 Authorized Release Certificate
EIA649	Configuration Management Standard
FAA Form 8130-3 Tags	FAA Order 8130.21 – Procedure for completion of use of the Authorized Release Certificate, FAA Form 8130-3, Airworthiness Approval Tag
FAR Part 2.101	Definitions
IAQG SCMH	Supply Chain Management Handbook
IATF 16949	Automotive Quality Management System
ISO 10012	Measurement Management Systems - Requirements for Measurement Processes and Measuring Equipment
ISO/IEC 17025	General requirements for the competence of testing and calibration laboratories
ISO 6789-1	Assembly tools for screws and nuts – Hand torque tools
ISO 9001	Quality Management Systems - Requirements
MIL-STD-2073	Military Standard DOD Materiel, Procedures for Development and Application of Packaging Requirements
RM13000	Problem Solving Method

4.0 DEFINITIONS/ACRONYMS

TERM	DEFINITION
Acceptance Authority Media (AAM)	The means defined by the organization to document the status of outputs with respect to but not limited to conformity, configuration, monitoring and

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TERM	DEFINITION
	measurement requirements, and identification throughout the product life cycle.
Advanced Product Quality Planning (APQP)	A phase-based project management approach utilizing a multi-functional team focused on the Voice of the Customer (VOC) that continually reinforces identification and mitigation of risks, monitors status of tasks and deliverables, and escalates issues to management as necessary to ensure the project plan is implemented. This approach provides effective early warning signals to drive on-time and on-quality delivery of products. This is a structured process aimed at ensuring quality and reliability with new products and processes.
Authorized Distributor	A distributor with a contractual arrangement with, or the express written authority of, the Original Manufacture or current design activity to buy, stock, repackage, sell, or distribute a product.
Bill of Material (BOM)	The list of raw materials, components, and instructions required to construct, manufacture, or repair a product or service.
BTP	Built to Print
Certification of Analysis (CoA)	A document attesting those specific goods have undergone specified testing with specified results.
Certification of Conformance / Certification of Compliance (CoC)	A document supplied by the manufacturer that specifies that the materials supplied to the customer meet the requirements specified.
Civil Aviation Administration of China (CAAC)	The Chinese civil aviation authority under the Ministry of Transport.
Configuration Control	Process for controlling modifications to hardware, firmware, software and documentation to protect the information system against improper modifications before, during and after system implementation.
Commercial and Government Entity (CAGE) Code	A unique identifier, consisting of five characters, that is assigned to government suppliers as a means of identifying a specific facility and location.
Commercially Available Off-The-Shelf (COTS)	Reference the definition in FAR Part 2.101.
Critical Part(s)	A part, whose integrity is key to the safe performance and the failure of which could have a catastrophic effect upon a part, assembly, or product and for which critical characteristics have been identified which must be controlled to ensure the required level of integrity. May identified on the associated Member drawing or other product definition

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TERM	DEFINITION
Critical Safety Item (CSI)	A part, an assembly, installation equipment, launch equipment, recovery equipment, safety device, software or support equipment for an aircraft or aviation weapon system that contains one or more characteristics for which failure, malfunction, or absence of could cause a “catastrophic” or “critical” failure resulting in the loss of or serious damage to the aircraft or weapon system, an unacceptable risk of personal injury or loss of life, or an uncommanded engine shutdown that jeopardizes safety.
Defense Federal Acquisition Regulation Supplement (DFARS)	DFARS contains requirements of law, Department of Defense wide policies, delegations of Federal Acquisition Regulation (FAR) authorities, deviations from FAR requirements, and policies/procedures that have a significant effect on the public.
Delegated Product Release Verification (DPRV)	A process whereby a supplier is delegated the authority to act on behalf of the delegating organization to verify and release product.
Delegated Quality Representative (DQR)	A supplier employee who acts as a Collins Aerospace Quality agent to release products through means such as process audits, product inspection, acceptance, and release.
Deliverable Software	Software delivered to an external customer or supplier. This may be airborne, ground based, manufacturing, test and support software that may be embedded with hardware.
Design Responsible Supplier	Supplier of products defined by a design/drawing proprietary to that supplier and linked to a customer part number using a customer-referenced drawing and/or other PO requirements (e.g., Category 1, Source Control, Source Design, Engineered Item) or linked to a Collins Aerospace part number using Collins Aerospace referenced drawing and/or other purchase order requirements.
Distributor	Organization carrying out the purchase, storage, splitting, and sale of products and not transforming, assembling, or otherwise modifying purchased product. Distributors are limited to raw material, industry standard, and Commercially Available Off The Shelf (COTS) parts. This does not include suppliers that purchase parts from third parties manufactured against Collins Aerospace proprietary drawings.
European Union Aviation Safety Agency (EASA)	An agency of the European Union with responsibility for civil aviation safety. It carries out certification, regulation and standardization and performs investigation and monitoring.
Federal Aviation Administration (FAA)	The division of the Department of Transportation that inspects and rates civilian aircraft and pilots, enforces the rules of air safety, and installs and maintains air-navigation and traffic-control facilities.

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TERM	DEFINITION
First Article Inspection (FAI)	A planned, complete, independent, and documented inspection and verification process to ensure that prescribed production processes have produced an item conforming to engineering drawings, planning, PO, engineering specifications, and/or other applicable design documentation.
Foreign Object Damage (FOD)	Any damage attributed to a foreign object that can be expressed in physical or economic terms which may or may not degrade the product's required safety and/or performance characteristics.
Franchised Distributor	An organization distributing product within the terms of a contractual agreement with the original component manufacturer.
Free and Open-Source Software	Individual free or open-source software package used within a product development. FOSS may be software or non-software artifacts (e.g., files, configurations, presentations, source code).
Government-Industry Data Exchange Program (GIDEP)	A cooperative activity between government and industry participants seeking to reduce or eliminate expenditures of resources by sharing technical information essential during research, design, development, production, and other operational phases of the life cycle of systems, facilities, and equipment.
Information Security	The protection of information and information systems from unauthorized access, use, disclosure, disruption, modification, or destruction to provide confidentiality, integrity, and availability.
Information System	<p>A discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information.</p> <p>Information Systems include systems that control, maintain the organization's information and the products that the organization designs.</p>
Independent Distributor (i.e., Broker)	An organization that purchases excess inventories from end users with the intention to sell and redistribute into the market that do not have limiting contractual agreements or obligations with the Original Component Manufacturer (OCM).
International Aerospace Quality Group (IAQG)	An international non-profit association that sets the standards for quality within the worldwide supply chain of the aerospace industry.
International Laboratory Accreditation Corporation (ILAC)	Corporation for facilitating trade by promoting the acceptance of accredited test and calibration results.
Key Characteristic (KC)	An attribute or feature whose variation has a significant influence on product fit, performance, service life, or producibility as determined by Collins Aerospace; that requires specific action for the purpose of controlling variation.

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TERM	DEFINITION
LTA	Long Term Agreement
Machine Capability Study	An evaluation that represents the internal production capabilities and characteristics of the machine (e.g., cycle time, tooling, voltage, current, etc.).
Manufacturing Process Review (MPR)	Review of the manufacturing plans and processes against the design data to ensure that the final product will repeatedly meet customer requirements.
Material Review Board (MRB)	A group of representatives who review and evaluate nonconforming material.
Measurement System Analysis (MSA)	A study of the effects of selected elements of a measurement process (e.g., people, machines, tools, methods, materials, environment) on accuracy, precision, and uncertainty of measurement.
Non-Deliverable Software	Software that facilitates the design, development, manufacture, inspection, test, acceptance, or calibration of a deliverable product, and is not generally delivered under a contract.
Non-Destructive Testing (NDT)	The process of inspecting, testing, or evaluating materials, components or assemblies for discontinuities, or differences in characteristics without destroying the serviceability of the part or system.
Online Aerospace Supplier Information System (OASIS)	This online resource contains a list of suppliers who are certified / registered under the IAQG rules to comply the aerospace quality management system requirements (9100 series).
Operator Certification	A method whereby an Operator, with the required training, has the capability to determine the acceptability or non-acceptability of parts they produce and/or inspect.
Original Component Manufacture (OCM)	An entity that designs and/or engineers a part and is entitled to any intellectual property rights to that part.
Original Equipment Manufacturer (OEM)	A company with design authority that sells products manufactured and assembled under the company's brand name.
PRI EAN	An online site (www.eAuditNet.com) that is used to document Special Processing audit results, attachments, letters, notes, scheduled audits, supplier advisories, Corporate Families, etc. with the ability to produce reports based on multiple criteria. eAuditNet.com is an electronic auditing network (eAuditNet.com). It is maintained by the Performance Review Institute (PRI) and acts as an electronic auditing and certification computer application.
PO	Purchase Order

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TERM	DEFINITION
Product	Any part, service, or material that is, or is intended by its manufacturer to be a part of or used in production.
Product Key Characteristic	An attribute or feature selected by measurable geometrical, material properties, functional, and/or cosmetic features of a product as defined by Collins Aerospace, whose variation control is necessary in meeting customer requirements, enhancing customer satisfaction, or requires specific actions for the purpose of controlling variation.
Production Part Approval Process (PPAP)	A process for supplier that demonstrate that their production processes: (1) meet all customer engineering design records and specification requirements and (2) produces product consistently meeting these requirements during an actual production run at the quoted production rate.
Product Safety	The condition of a 'steady state' of the product when it provides the services / usefulness / purpose for which it is designed and manufactured – without causing unacceptable risk of harm / loss / damage to life or property.
Qualified Distributor List (QDL)	The list of Distributors that are qualified by RTX to provide raw metallics, electronics, and hardware. Note: Electronics include electrical, electronic, and electro-mechanical components (e.g., connectors, wire, electronic components, terminals, lugs, pc boards, semiconductors). Hardware includes fasteners (e.g., nuts, bolts, rivets, washers, pins, screws, clamps, springs, seals, O-rings, ferrules, fittings). Raw metallic materials include but are not limited to bar, sheet, plate, tube, wire, forging, casting, billet, ingot, braze alloy powder, braze alloy wire, and weld filler wires.
Quality Management System (QMS)	A formalized system that documents processes, procedures, and responsibilities for achieving quality policies and objectives.
Quality Notification (QN)	A process used to document a non-conformance.
Raw Material	<ol style="list-style-type: none"> 1. Crude or processed material that can be converted by manufacture, processing, or combination. 2. Material manufactured by a metal raw material producer per an industry specification(s). This includes bar, rod, tubing, extrusion, plate, sheet, or strip material, that may have had a special process (e.g. heat treat, Non-Destructive Testing [NDT]) performed in accordance with the applicable industry specification, by the metal raw material producer's facility. All subsequent special processing of metal raw materials performed outside of the material producer shall be performed by an Strategic Business Units (SBU) approved special process supplier.
Record	A type of documentation that establishes and provides objective evidence of conformity to requirements and effectivity of the QMS (Quality Management

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TERM	DEFINITION
	System) and activities performed. For example: process documentation and inspection/test results, etc.
Repair	Action on a nonconforming product to make it acceptable for the intended use to include actions taken on a previously conforming product to restore it for use.
Rework	Action on a nonconforming product or service to make it conform to the requirements (e.g., drawing, specification, etc.).
Safety Data Sheets (SDS)	Includes information such as the properties of each chemical; their physical, health, and environmental hazards; protective measures; and safety precautions for handling, storing, and transporting the chemical.
Shall	Indicates a requirement.
Shelf Life	The length of time during which an item of supply, subject to deterioration or having a limited time which cannot be renewed, is considered serviceable while stored.
Should	Indicates a recommendation.
Software Bill of Materials (SBOM)	A SBOM is a nested inventory, a list of ingredients that make up software components.
Special Process (SP)	Those processes which modify or change the inherent physical, chemical, electrical, or metallurgical properties of an item, or non-conventional methods which remove or deposit material on an item during or after fabrication which cannot be fully evaluated by nondestructive means or those used to maintain process control such as nondestructive testing. These processes may require a demonstration of operator or equipment capability or proficiency and require special controls for monitoring per specification.
Statistical First Article Inspection (i.e., Process Capability Study) (sFAI)	A method to accelerate the detection of incapable processes by completing a dimensional inspection analysis of variable measurements for a 25-piece sample.
Strategic Business Unit (SBU)	A division of Collins Aerospace with responsibility for a particular range of products or activities.
Supplier	Organization that provides and furnishes product or services to Collins Aerospace or another sub tier supplier.
Unique Entity Identifier (UEI)	An official identifier for doing business with the U.S. Government.

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TERM	DEFINITION
Variable data	Quantitative measurements taken on a continuous scale (e.g., the diameter of a cylinder, the gap between mating parts).
(X-Ray Fluorescence) XRF	A non-destructive analytical technique used to determine the elemental composition of materials.
ZERO	Process aimed at reactively and proactively strengthening the quality performance to reduce risk from institutional knowledge and hidden factors triggered by performance or product criticality.
Zero Defect Plan™ (ZDP™)	A systematic implementation of established Quality Engineering tools and processes that focuses on protecting the Customer from receiving non-conforming-materials.

5.0 QUALITY MANAGEMENT SYSTEM (QMS) REQUIREMENTS

5.1 QMS Certification Requirements

5.1.1 The supplier receiving a purchase order (PO) from Collins Aerospace shall be certified as defined in Table 5-1: QMS Certification, **by an industry accredited body** (refer to Appendix 1 for supplier type).

5.1.2 The supplier shall ensure that members within its supply chain are compliant to applicable industry specifications listed in Table 5-1.

Table 5-1: QMS Certification

Supplier Type – Refer to Appendix 1	QMS Certification Required
Type 1: Build to Print (BTP) – Customer Design Part Manufacturer	AS/EN/JISQ 9100 Certification
Type 2: Design Responsible Supplier – Build to Spec	AS/EN/JISQ 9100 Certification
Type 3: Distributor (Raw material and COTS)	ISO 9001 or AS/EN/JISQ 9100 or AS/EN/JISQ 9120 Certification or IATF 16949
Type 4: Special Process Suppliers	AS/EN/JISQ 9100 Certification or Nadcap AC7004
Type 5: Calibration or Laboratory Service Provider	ISO 10012 or ISO/IEC 17025 or Nadcap AC7006
Type 6: Industry Standard Part or Industry Standard Raw Material Manufacturer	ISO 9001 or AS/EN/JISQ 9100 or IATF 16949

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5.1.3 A supplier providing deliverable software shall conform to AS9115. In addition, the supplier should consider:

- Information Security Issue Management process
- Software Bill of Material (SBOM) process
- Free and Open-Source Software (FOSS) process and usage

5.1.4 A supplier using non-deliverable software that affects deliverable product, or services shall conform to AS9125. The following are areas that may have non-deliverable software:

- Design and Development
- Manufacturing
- Verification, Validation and Maintenance

5.1.5 Calibration services being performed by the original equipment manufacturer (OEM) shall be compliant to ISO/IEC 17025.

5.1.6 Materials Testing Laboratories (MTL) shall be certified by an industry accredited body by either Nadcap or by signatories to the International Laboratory Accreditation Cooperation (ILAC).

5.1.7 All distributors within the supply chain shall be certified by an industry accredited body to AS/EN/JISQ 9100, AS/EN/JISQ 9120, ISO 9001, or IATF 16949.

- When sourcing a Collins Aerospace designed part through distribution and the source is not designated on the drawing, the distributor shall ensure the product is procured from a current Collins Aerospace approved source. Submit COL-ASQR-FRM-0003 or SBU equivalent for clarification.

5.1.8 All distributors of raw metals, electronics, and hardware in the supply chain shall be on the RTX Qualified Distributor List (QDL) unless a directed distributor is identified on the Collins Aerospace PO. The qualified distributors listed on the QDL can be found at <https://www.rtx.com/suppliers/united-technologies-suppliers/united-technologies-asqrd>.

- ASQR-01 Form 9 shall be used to initiate adding a distributor to the RTX QDL.

5.2 Order of Precedence

5.2.1 If requirements conflict, the supplier shall contact Collins Aerospace for clarification using COL-ASQR-FRM-0003 or SBU equivalent. The order of precedence for documents is as follows:

1. Contract (e.g., PO, Long Term Agreement (LTA))
2. Drawing Referenced on PO
3. Collins Aerospace Specifications Referenced on Drawing
4. Industry Specifications Referenced on Drawing

5.3 Communication with Collins Aerospace

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5.3.1 Deviation from the Quality requirements is not permitted unless specifically authorized in writing by Collins Aerospace Supplier Quality SBU/site Management (e.g., PO, purchase order supplements/amendments, ASQR-01 Forms and Collins Aerospace forms listed in Table 5-2). Verbal agreement and instructions shall not be construed as Collins Aerospace approval or authorization.

Table 5-2: Supplier Communication Forms

FORM	TITLE	USED FOR	SUBMISSION METHOD
COL-FRM-0045	QMS Supplier Audit Checklist	<ul style="list-style-type: none"> Assessing compliance/gaps to this document. 	All Supplier Communication shall be submitted via applicable SBU/Site flow-down requirements All Supplier Communication shall be submitted via applicable SBU/Site flow-down requirements.
COL-ASQR-FRM-0002	Process Change Notification	<ul style="list-style-type: none"> Notification of and request for approval of changes that may affect product quality and/or product design characteristics. Notification of any potential, known, or planned obsolescence. 	
COL-ASQR-FRM-0003	Supplier Request for Information (SRI)	<ul style="list-style-type: none"> Requesting clarification, interpretation, or communication of identified errors for drawings specifications, requirements. Requesting authorization for deviations/exclusions to quality requirements. Requesting approval before altering/repairing customer property. Requesting approval to use material/hardware with broken traceability or from an unauthorized source. Inform Collins Aerospace about the expiration of tool life. Requesting approval to use an alternate inspection plan. For use when situation or communication is not covered by any other form. 	
ASQR-01 Form 4	Work Transitions	<ul style="list-style-type: none"> Requesting approval of work transfers (e.g., make to make, make to buy, buy to buy, and buy to make). 	
COL-ASQR-FRM-0005	Supplier Compliance Matrix	<ul style="list-style-type: none"> Self-assessing compliance/gaps to this document. 	
COL-ASQR-FRM-0006	Notice of Potential Quality Escape (NOPQE)	<ul style="list-style-type: none"> Communicating discovery of suspect and validated nonconforming product having been shipped regardless of destination and time frame. 	

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FORM	TITLE	USED FOR	SUBMISSION METHOD
ASQR-01 Form 7	Delegated Quality Representative (DQR) Candidate Application Form	<ul style="list-style-type: none"> Requesting approval for DQR candidates. 	
ASQR-01 Form 8	Letter of Agreement DQR Program	<ul style="list-style-type: none"> Documenting acceptance in DQR program (approval granted once every three years). 	
ASQR-01 Form 9	Qualified Distributor List (QDL) Request	<ul style="list-style-type: none"> Requesting approval to use a Distributor that is not on the RTX QDL. 	

5.3.2 For communication with Collins Aerospace, supplier shall have the capability to communicate in English including the following documents unless otherwise approved by Collins Aerospace:

- Quality manual
- Process documentation requiring Collins Aerospace review or approval.
- All formal communication (e.g., COL-ASQR-PRO-0003, Collins Aerospace specific Forms, First Article Inspection (FAIs), APQP documents, etc.).

5.3.3 In cases where supplier maintains copies in their native language as well as in English, and there is a conflict, the English language document shall take precedence.

5.4 Quality Alerts

5.4.1 Quality Alerts are used to communicate pertinent quality related issues or other approved information to suppliers and/or processors. Actions defined within an alert are in alignment with the applicable Collins Aerospace SBU/site flow down requirements and will typically include an implementation date. Suppliers shall perform the following upon receipt of alerts:

- Provide containment of suspect non-conformant parts.
- Review the actions listed in the alert.
- Determine any further impact of the alert (if any).
- Take necessary actions to ensure compliance to requirements.
- Notify Collins Aerospace using COL-ASQR-FRM-0003 or SBU equivalent if unable to comply with alert.
- Respond as outlined in the alert.

5.5 Government Industry Data Exchange Program (GIDEP)

5.5.1 Suppliers within the United States and Canada conducting business with the government or supporting the government's acquisitions of systems, facilities, or material, shall participate in Government Industry Data Exchange Program ("GIDEP") if directed through PO flow down.

5.5.2 Suppliers delivering directly or indirectly to any Collins Aerospace SBU/site in the United States or Canada shall action GIDEP alerts covering the product per the requirements within the Alert correspondence, and Collins Aerospace SBU/site shall be informed of status whether they come

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through a Collins Aerospace SBU/site or through a supplier's supply chain. Collins Aerospace supply chain members shall be a GIDEP member and ensure alerts are actively monitored, issued, and addressed. Refer to <https://gidep.org/home> for more information.

- 5.5.3 The supplier shall notify Collins Aerospace using COL-ASQR-FRM-0006 or SBU equivalent for any product impacted by GIDEP alerts and shipped to Collins Aerospace.

5.6 Right of Access

5.6.1 Collins Aerospace, its representatives, its customers and its customer's governmental agencies and regulatory agencies shall have the right of entry into a supplier's facility or that of their subcontractors, suppliers and/or business partners with suitable facilities for the purpose of accessing quality system documentation, quality records, perform quality audits, and verify product and processes.

5.6.2 Suppliers shall grant accessibility to Level 2 data in OASIS and equivalent access in **PRI EAN** (Nadcap), when requested by Collins Aerospace. Collins Aerospace may input significant/frequent escape data, major audit findings and delinquent responses into the OASIS and **PRI EAN** databases.

5.7 Supplier Initiated Changes

5.7.1 The following is a list of potential changes that could affect product quality and require notification using COL-ASQR-FRM-0002 or SBU equivalent. **Refer to section 6.2 for first article inspection (FAI) requirements related to changes.**

- Notification within two business days of any major change in Quality management, ownership, Quality Management System (QMS), or a change in the number of employees or resources ($\geq 10\%$ change within **three** months) used to provide Collins Aerospace products or materials.
- A change affecting design characteristics.
- A change in process(es), inspection method(s), tooling, or materials, that can potentially affect design characteristics.
- **A change from one source performing a special process to another.**
- A change in numerical control program or translation to another media that can potentially affect design characteristics.
- A natural or man-made event, which may adversely affect the manufacturing process.

5.7.2 Changes to supplier designed product that may affect Collins Aerospace product requirements shall be approved by each impacted Collins Aerospace SBU/site prior to incorporation, or as required by prior contractual requirements.

5.7.3 Collins Aerospace approval of COL-ASQR-FRM-0002 or SBU equivalent does not relieve the supplier of responsibility to meet design characteristics requirements.

5.8 Supplier Managed Work Transfer

5.8.1 When a supplier is planning a work transfer (e.g., make to make, make to buy, buy to buy, buy to make), the supplier shall request approval from each impacted Collins Aerospace SBU/site using ASQR-01 Form 4. The movement of work shall not commence until approval from all affected Collins

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Aerospace SBU/sites is received. Collins Aerospace may notify the supplier of product validation actions that are required to ensure the integrity of the product throughout the life cycle of the project and are maintained after the project is complete (e.g., PPAP, PFMEA). Refer section 5.7 for Supplier Initiated changes requirements.

- Suppliers shall validate all affected features, characteristics, and compliance to Collins Aerospace requirements.
- Transfer of any work (feature, operation, etc.) and multi-sourcing are also work transfers and all requirements shall be met.

5.8.2 If changing from one source performing a special process to another Collins Aerospace approved source a partial FAI shall be completed to document and validate the new special process source; ASQR-01 Form 4 is not required. Refer to section to 6.14 for Special Process requirements.

5.8.3 For guidelines on implementing a work transfer process for the supplier and their supply chain, reference IAQG SCMH section 7.1 (Work Transfer Management).

5.9 Documented Information

5.9.1 Changes to documented information (e.g., work instructions, travelers, routers, test reports, shipping documents) shall be recorded, dated, and traceable to a qualified person making the change (e.g., name, signature, stamp, electronic signature) with a permanent marking method and the original information being legible and retrievable after the change. Traceability of changes shall be also reflected in amended document number.

5.9.2 When specified by Collins Aerospace the supplier shall use electronic systems to capture production process verification data (e.g., PPAP, FAI) and audit data.

5.10 Acceptance Authority Media (AAM)

5.10.1 The supplier shall, within its organization and its supply chain, ensure that the use of Acceptance Authority Media (AAM) (e.g., Stamps, electronic signatures/ initial log, passwords) is clearly defined within its QMS. Supplier shall ensure the method of AAM is controlled and secure. The use of AAM is considered personal commitment of accuracy of work performed or witnessed. If an employee is terminated or leaves the Supplier's employment, their AAM access is removed.

5.11 Record Retention

5.11.1 The supplier shall retain all records needed to provide evidence of conformance, while the product is being produced and for a minimum of ten years after the date of manufacture. For product safety, critical parts, or critical safety items (CSI), (as defined within in design/drawing package) records shall be maintained for 40 years after the date of manufacture. Methods and records shall be available for review by Collins Aerospace representatives, customers, and regulatory authorities.

5.11.2 If the supplier is unable to maintain the records, the supplier shall provide the option for Collins Aerospace SBU/site to take possession of the records.

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5.11.3 Records shall not be destroyed without documented approval from Collins Aerospace if prior to the required retention period using COL-ASQR-FRM-0003 or SBU/site equivalent.

5.11.4 Records being destroyed shall be rendered unreadable and unusable.

5.12 Supplier Performance

5.12.1 Collins Aerospace monitors their suppliers for risk and performance. Collins Aerospace reserves the right to invoke tools or activities such as the below items as necessary to manage oversight activities:

- Increased audit frequency
- Corrective action plans
- Continuous improvement initiatives
- Increased level of inspection
- Onsite oversight by Collins Aerospace representative or designated third party at supplier's cost (source inspection).
- 100% inspection on identified features.
- Process Failure Mode and Effects Analysis (PFMEA).
- Supplier Improvement Plans, or Zero Defect Plan (ZDP™)
- ZERO
- Capacity and Capability Assessments
- APQP and PPAP elements
- On-site investigations of known problems at the Supplier
- Manufacturing Process Review (MPR)

5.12.2 Collins Aerospace may require additional oversight activities to be implemented within the supplier's supply chain.

5.13 Foreign Object Damage (FOD)

5.13.1 For Foreign Object Damage (FOD) Prevention, supplier shall comply with the requirements of AS/EN/JISQ 9146.

6.0 PRODUCT PLANNING AND CONTROL

6.1 Advanced Product Quality Planning (APQP) and Production Part Approval Process (PPAP)

6.1.1 APQP and PPAP per AS/EN/JISQ 9145 applies when invoked by the PO or any other contractual document issued by Collins Aerospace.

6.1.2 When determining the applicable deliverables for APQP and PPAP the supplier shall work with the Collins Aerospace representative.

6.1.3 When required, the supplier shall flow down the requirements of APQP and PPAP to all members of the supply chain and maintain records for compliance.

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6.1.4 When required, supplier shall reduce process risk and variation (i.e., using Process Failure Mode and Effects Analysis (PFMEA), control plans, and process control methods).

6.1.5 For guidelines on implementing APQP and PPAP, reference the [IAQG SCM H](#) and templates in [7.2 \(Advanced Product Quality Planning \(APQP\) 9145\)](#).

6.2 First Article Inspection (FAI)

6.2.1 FAIs shall be performed per AS9102 requirements, [COL-ASQR-WRK-0001](#) and any additional SBU/site requirements.

6.3 Process Capability Study (e.g., Statistical FAI (sFAI))

6.3.1 Collins Aerospace reserves the right to invoke requirements for [process capability](#). This may be invoked through, but not limited to, work transitions, new product introduction, [APQP and PAPP elements](#), or if a part or site has a history of dimensional escapes.

6.3.2 [Process capability](#) requires that every quantitative feature on the design blueprint is measured on a 25-piece sample.

- Further information on sFAI can be found in the “ZDP™ How To Book”, which can be provided upon request through <https://portal.rockwellcollins.com/web/suppliers/supplier-quality-training-welcome>.

6.3.3 A machine capability study should be used for dimensions produced by the same machine and process as an alternative to measuring every dimension on a specific part number and be defined by AS9103.

6.3.4 Alternatives for demonstrating process control can be used with Collins Aerospace SBU/site approval.

6.3.5 If destructive analysis is required to perform variable measurements an alternative approach to the [process capability](#) may be used to demonstrate process capability. Typical parts may include complex castings, complex machining's, or composite molds.

6.3.6 [Process capability](#) does not apply to categorical (attribute) features that have either binary (i.e., presence or absence) or a fixed number of values (i.e., count).

6.3.7 Reference dimensions and “approximate” dimensions do not require process [capabilities](#) measurements.

6.3.8 When required, [process capability](#) shall be performed on lower-level parts and assemblies.

6.4 Raw Material Verification

6.4.1 The supplier shall develop, document, and implement a periodic raw material verification program that will ensure that material(s) received from the supplier's sub-tier sources meets the applicable technical

and quality requirement **to include validation of certification authenticity.**

6.4.2 Additional raw material verification (e.g., independent lab testing, XRF) shall be based on risk and SBU/site requirements.

6.5 Customer Supplied or Owned Property (Including but not limited to tooling, gages, fixtures, materials, test standards, and equipment)

6.5.1 Suppliers acquiring and/or controlling customer property accountable to Collins Aerospace shall be required to adequately care for, maintain, and assure property is used only as authorized.

6.5.2 Suppliers shall have a property control system which includes a property management plan, acquisition, receiving, identification, records, physical inventory, subcontractor control, reports, relief of stewardship, utilization, including consumption, movement and storage, maintenance, property contract closeout and self-assessment.

- The supplier receiving Collins Aerospace owned customer property shall return **any customer property** after PO requirements are completed unless documented approval is received from buyer for an alternative, disposition, including retention by the supplier.
- Once repair is performed on customer property validation and verification **shall** be conducted prior to use.
- The supplier is responsible for the repair of all supplied property damaged after receipt by the supplier, and for the preservation of customer property which are not in use.
- The supplier is responsible for the preventative maintenance of the customer property and shall have a documented process.
- The supplier is responsible to notify Collins Aerospace SBU/site for any worn customer property.
- The supplier is responsible for the replacement or replacement costs of any customer property that are lost, damaged beyond repair, or not returned.
- All supplied tooling/gages/fixtures in the custody of a supplier are subject to periodic inventory audits and calibration.

6.5.3 Suppliers shall maintain an accountable property log to monitor activity and location of customer supplied or owned property in their custody. **This list shall include both the customer property supplied by a facility and fabricated by the supplier to manufacture contracted components but owned by its customer(s).**

6.5.4 A surveillance audit of supplier's property management system may be conducted. Periodic onsite assessments may be necessary to verify quantity, storage conditions, and that items are used only for purposes authorized by the contract.

6.5.5 **The supplier shall submit a documented request and receive formal approval before any alteration or repair is performed on customer property using COL-ASQR-FRM-0003 or SBU equivalent** and ensure all calibration requirement activities are coordinated with the applicable SBU/site.

6.6 Obsolescence Management

6.6.1 When material, process, or inspection specification(s) are subject to revision, cancellation, or

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superseding; suppliers shall have a process for obsolescence management that includes risk assessment, and identification of affected parts and assemblies.

- 6.6.2 When the drawing refers to a material, process, inspection specification, drawing or standard that has been revised, cancelled, or superseded; the supplier shall notify Collins Aerospace of any potential, or known obsolescence. Notification shall be submitted using COL-ASQR-FRM-0003 or SBU equivalent, to the impacted Collins Aerospace SBU/site, with sufficient lead time so as not to disrupt production and delivery schedules.

6.7 Counterfeit Risk Mitigation

- 6.7.1 Suppliers and distributors shall implement and enforce a documented Counterfeit Parts Prevention and Control Plan per industry standards. The plan shall flow down requirements of AS5553, AS6174, DFARS 252.246-7007, and/or DFARS 252.246-7008 as applicable throughout the supply chain.
- 6.7.2 The use of material and hardware with broken traceability or sourced from a non-authorized supplier (e.g., independent distributor/broker) is prohibited unless approved by Collins Aerospace. Supplier shall request approval from Collins Aerospace using COL-ASQR-FRM-0003 or SBU equivalent. Collins Aerospace will then provide direction for it, and how, the material can be used.
- 6.7.3 The use of Electrical, Electronic, and Electromechanical (EEE) parts with broken traceability or sourced from a non-authorized supplier (i.e., independent distributor/broker) is prohibited unless the non-authorized supplier is AS6081 certified and the EEE is subject to a Counterfeit Avoidance Program in accordance with the guidelines of ARP6328. Supplier shall request approval from Collins Aerospace using COL-ASQR-FRM-0003 or SBU equivalent prior to shipment.

6.8 Monitoring and Measurement of Equipment

- 6.8.1 Supplier management systems for the control of monitoring and measuring equipment shall meet the requirements of ISO 10012 or ISO 17025.
- 6.8.2 Suppliers shall document an impact review whenever monitoring and measuring equipment is identified with a Significant-Out-Of-Tolerance condition (an out of tolerance condition exceeding 25% of the product tolerance or when measured error of the monitoring and measuring equipment is greater than two times the calibration tolerance when product tolerance is not known) and notify Collins Aerospace by submitting COL-ASQR-FRM-0006 or SBU equivalent within two business days of discovery if impacted product has been shipped.

6.9 Monitoring and Measurement of Product

- 6.9.1 Suppliers shall select monitoring and measuring equipment with a minimum accuracy ratio of 4 to 1 (product tolerance to equipment tolerance) unless otherwise specified.
- 6.9.2 Suppliers shall perform Measurement System Analysis (MSA) on all measurement systems used to measure Product Key Characteristics (KCs) as defined in AS9103.
- 6.9.3 When determining critical features (characteristics) refer to AS9138.

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6.9.4 Suppliers shall have a process for on-going verification of visual acuity and color vision for individuals performing product inspection.

6.9.5 A validation of torque settings and output shall be performed on torque measurement and setting tools, and recorded against acceptance criteria, using a calibrated torque tester. Frequency of validation should be once per shift for manual torque tools and monthly for auto or clutch torque tools. Validation activities should include any attachments and extensions required for the specific application.

6.9.6 Supplier shall have a torque setting and verification program to ensure:

- Verification process of fasteners when not using automated torque wrenches with angle monitoring
- Selecting and setting torque tools to meet tolerance and range requirements (i.e., resolution less than 10% of tolerance).
- Documented instructions for use of extenders and attachments, including tool identification numbers, specific configuration, and the impact of any angle in relation to holding point during torquing.
- Clearly defined range values.

Refer to ISO 6789-1 for more definition and best practices for torque control and usage.

6.10 Configuration Management

6.10.1 The supplier shall have a process in place for configuration management (e.g., EIA649).

6.10.1.1 For suppliers with design authority, additional development and production configuration management requirements apply:

- Includes generation and maintenance of a complete Bill of Material (BOM), as applicable. This may include parts, standard parts, consumable parts, bulk parts, catalog parts, assemblies and subassemblies, software code, name, identification number, quantity and revision.
- Submit any supporting documentation for the configuration change, as applicable using COL-ASQR-FRM-0003 or SBU equivalent
- Submit evidence that supplier approved alternate parts and associated identification data are complete using COL-ASQR-FRM-0002 or SBU equivalent.

6.11 Inspection Sampling

6.11.1 Supplier shall perform 100% inspection for all characteristics on Collins Aerospace drawings for in-process and final inspection or comply with the requirements of AS9138 or SBU specified process.

- The supplier's statistical sampling procedure/plan shall comply to AS9138 with minimum protection levels meeting AS9138 Table A1 and C=0. Collins Aerospace approval is subject to restrictions noted in AS9138, Section 4.3 Safety/Critical Characteristics, and part/product Design Data sampling requirements and/or prohibitions. Approval of alternate

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inspection frequency plans shall be obtained from Collins Aerospace using COL-ASQR-FRM-0003 or SBU equivalent.

6.11.2 The verification plan (e.g., an inspection plan) shall be available for review.

6.12 Operator Certification

6.12.1 Supplier shall request and obtain approval for the use of an Operator Certification program (e.g., AS9162) or special manufacturing methodologies (e.g., manufacturing controlling features, die/mold control, and method of manufacturing), from Collins Aerospace using COL-ASQR-FRM-0003 or SBU equivalent.

6.13 Delegated Quality Representative (DQR) / Delegated Product Release Verification (DPRV) Program

6.13.1 Suppliers participating in Collins Aerospace DQR/DPRV program shall define the minimum system and personnel requirements in accordance with AS9117 and SBU/site requirements.

6.13.2 Approval for acceptance in Collins Aerospace DQR Programs shall be requested and obtained using ASQR-01 Form 8 once every three years.

6.13.3 Collins Aerospace approval for DQR candidates shall be requested and obtained using Collins ASQR-01 Form 7.

6.13.4 For DQR training requirements, the supplier shall comply with AS13001.

6.13.5 DQR personnel shall have an approved ASQR-01 Form 7 prior releasing product to Collins Aerospace.

6.13.6 When the supplier has its own DPRV program (i.e., Supplier is the delegating organization), Supplier shall comply with the requirements of AS9117 and AS13001.

6.14 Special Processes

6.14.1 Special Process Suppliers shall have their QMS certified to AS/EN/JISQ 9100 or Nadcap AC7004.

6.14.2 All suppliers, regardless of tier, providing Special Processes shall be Nadcap Accredited for each Special Process being performed. Special Processes are defined in COL-FRM-0105 (Applicable Special Process Requirements). Collins Aerospace Strategic Business Unit (SBU)/sites may require alternative Special Process Requirements.

6.14.3 Design Responsible Supplier shall have a comprehensive special process management program in place for the special processes defined in COL-FRM-0105 (Applicable Special Process Requirements).

- The program shall include maintaining a list of qualified Special Process Suppliers along with their Nadcap approval status.

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- If Special Process Suppliers do not hold Nadcap certification, Design Responsible Supplier shall maintain appropriate oversight of internal and supplier processes including, but not limited to, onsite special process audits, periodic testing of product, and other means to validate product integrity.

6.14.4 Based on Product or Supplier Risk, Collins Aerospace may require:

- Custom certificate of conformance which certifies predetermined special process parameters.
- Frozen process plan monitoring requires management of manufacturing plans.
- Supplemental Collins Aerospace Special Process audits or Continuation Special Process **Audits**.

6.15 Preservation of Product

6.15.1 Suppliers shall deliver material/article within shelf life **as defined within the SBU/site contractual flow**

6.15.2 For shelf-life items, the supplier shall provide information regarding the recommended storage conditions, shelf life, expiration dates, date of manufacturing or pot life requirements as required by the SBU/site. This information should be located on either the container and/or requested certifications.

6.15.3 Applicable HAZCOM information shall be located on either the container and/or requested certifications.

6.15.4 Safety Data Sheets (SDS) sheets may be applicable to the type of item purchased and shall be retained per record retention requirements.

6.15.5 The packaging of product shipped to Collins Aerospace shall ensure protection from transit damage and at a minimum comply with the following as applicable (in addition to any stated requirements in Drawings / Specifications):

- Reference ASTM-D3951 for Standard Practice for Commercial Packaging
- Reference MIL-STD-2073 for Standard Practice for Military Packaging

6.16 Direct Shipment/ Drop Shipment

6.16.1 When authorized by the PO, suppliers shall ship directly to customers as directed by the SBU/site.

6.16.2 The supplier shall provide a copy of the shipping documentation sent with product to the Collins Aerospace SBU/site (e.g., iLot).

6.17 Zero Defect Plan (ZDP™)

6.17.1 The Collins Aerospace ZDP™ is a systematic implementation of established Quality Engineering tools and processes that focuses on protecting the Customer from receiving non-conforming-materials. The goal of the ZDP™ is to drive to zero non-conforming products. The ZDP™ methodology is defined in the “Zero Defect Plan™ How to Book”, which can be accessed through <https://portal.rockwellcollins.com/web/suppliers/supplier-quality-training-welcome>.

6.17.2 Collins Aerospace reserves the right to audit and/or require any supplier to submit the ZDP™ using

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the Collins Aerospace prescribed method and template or an approved alternate.

- 6.17.3 Evidence of execution of ZDP™ shall be made available and/or provided upon request from Collins Aerospace demonstrating execution progress and contains the evidence requirements such as QC Actions implementation, QC Inspection progress, ZDP™ Planning and Execution Table and leading indicators table.
- 6.17.4 Suppliers implementing and currently engaged in ZDP™ shall submit updates and changes made to their Zero-Defect Plan™ and provide periodic updates to their ZDP™ execution lead.
- 6.17.5 Collins Aerospace may invoke ZDP™ for the following (but not limited to):
 - Escapes impacting Collins Aerospace and/or Collins Aerospace customers.
 - New development/key programs requirements.
 - First Pass Yield issues impacting quality or delivery.
 - Receipt of new work from Collins Aerospace.
 - Execution of ZDP™, or equivalent methods, shall be extended to members of the supply chain (e.g., sub-tier suppliers) when those members are posing risk to Collins Aerospace or its supplier.

6.18 Quality Control Actions

- 6.18.1 The best practices contained in COL-FRM-0087 are intended to eliminate common categories of non-conforming material that have been identified through an evaluation of the Collins Aerospace value stream's (Collins Aerospace and Suppliers) past performance and escapes.
- 6.18.2 COL-FRM-0087 may be implemented by Suppliers in accordance with the applicability table contained within the form.

7.0 CONFORMANCE

7.1 Product Inspection Certification

- 7.1.1 A Certification of Conformance / Compliance (CoC) shall accompany each shipment and include the information from Table 7-1: Certificate of Conformance Minimum Information.. Electronic copies may be accepted if directed by the SBU/site.

Table 7-1: Certificate of Conformance Minimum Information

1. Certificate of Conformance/Compliance	9. Part nomenclature or description per PO line item
2. Name and address of the organization/ supplier/ manufacturer providing product to Collins Aerospace	10. Quantity of parts delivered
3. Name and address of Collins Aerospace facility product is delivered to.	11. Serial number(s) of parts delivered for serialized parts. If serialization is not required, Work Order or Batch/Lot number shall be provided

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4. Commercial and Government Entity (CAGE) Code / Unique Entity Identifier (UEI) Code (as applicable)	12. If applicable, non-conformance report number (e.g., QN, MRB #, etc.) Additional SBU requirements may apply.
5. Country of Manufacture and/or Country of Origin	13. Statement of conformity to Collins purchasing requirements (e.g., "I hereby certify the material / service supplied was produced in accordance with the PO, and all applicable drawings and specifications.")
6. PO #, Revision, and Line Item	14. Signature or electronic signature and title of authorized supplier representative with date
7. Full drawing or specification number with revision(s) per PO (Configuration Requirements)	15. Source or DQR/ or Third-Party inspection stamp or electronic equivalent with date if applicable.
8. Part number as listed on the PO	

- 7.1.2 Original equipment manufacturer (OEM) or OCM CoC shall be provided by the supplier.
- 7.1.3 If the SBU/site utilizes and directs the use of an electronic release system (e.g., iLot), that system shall be used and satisfies the CoC requirement as listed in **Table 7-1**.
- 7.1.4 When required, either a FAA Form 8130-3 tag or EASA Form 1 or CAA UK Form 1 shall be included with each Product for airworthiness approval.
- 7.1.5 Chemical/Raw material certifications shall reflect actual values (not range), including mill data, and that the material certifications match the drawing, specification requirements including **specification name**, part number **(if applicable)** and revision. Collins Aerospace requires unbroken chain of ownership from the mill to the PO supplier (e.g., packing slips/ CoCs from each intermediary distributor).
- 7.1.6 **Purchased parts procured directly from a distributor shall provide the following:**
- **Original manufacturer warranty**
 - **Traceability to the OEM**
 - **Distributor or OEM or OCM CoC with date codes / lot number**
- 7.1.7 When parts or materials require approved special processes, a special process certification shall be available and provided per SBU/site requirements for each production shipment. At a minimum, the special process certification shall include the name and location of the certified special processor and the special process being performed (when applicable **shall** match SBU/site drawing note including, e.g., the specification, class, type, color).
- 7.1.8 A build to print supplier responsible for any of the special processes found in section 6.14 shall provide copies of the processor's CoC and include it with each shipment of material or the use of an electronic release system (e.g., iLot). At a minimum the processor's CoC shall include:**
- **The Collins Aerospace part number and revision as applicable.**
 - **The quantity processed.**

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- The processor name and address.
- The process name, specification number and revision that the parts were processed in accordance with, including (as applicable) class, type, and color per the drawing.
- The processing date.

7.1.9 Supplier shall verify product compliance from the certification received from their sub-tiers.

7.2 Corrective Action

7.2.1 When a nonconformance is identified, Collins Aerospace may issue Supplier Corrective Action Request (SCAR).

7.2.2 Suppliers shall have a documented procedure for corrective action which includes requirements to respond to Customer complaints and requests for corrective action. The supplier is required to utilize appropriate methods such as Eight Disciplines (8D) or equivalent process for problem solving to develop appropriate root cause analysis and corrective action (e.g., RM13000).

7.2.3 Upon implementation of corrective action, to ensure effectiveness, suppliers shall have a documented process in place to ensure that 100% over-inspection (i.e., additional independent measurement of the affected characteristic(s)) is performed of the deviated characteristics for a minimum of the next three consecutive manufactured lots (quantities of parts produced under conditions that are considered uniform) unless otherwise specified by Collins Aerospace.

7.2.4 Regardless of the products warranty status, when requested, the supplier is required to provide a root cause and corrective action for failures.

7.3 Nonconformity

7.3.1 All product reworked shall have documented work instructions.

- The supplier shall request and obtain approval for rework of product subject to frozen process control.
- Non-conforming product not subject to frozen process control that can be reworked to meet all product requirements within the existing manufacturing process does not require Collins Aerospace notification or request for approval/disposition unless required by SBU/site in specific contractual documents.

7.3.2 Collins Aerospace may assign Key Characteristic requirements as specified in AS9103 for escapes, repeated escapes, or recurrent concession requests.

7.3.3 Unless authorized by a Collins Aerospace SBU/site with a formal Material Review Board (MRB) letter of delegation, suppliers shall follow the SBU/site requirements for MRB disposition and control. This includes suppliers with design authority as directed by the SBU/site MRB.

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7.3.4 Suppliers shall not disposition Use-As-Is (UAI) or repair, without formal approval from Collins Aerospace SBU/site MRB.

7.4 Notice of Potential Quality Escape (NOPQE) or Disclosure

7.4.1 Suppliers shall notify Collins Aerospace of delivered suspected non-conforming product using COL-ASQR-FRM-0006 or SBU equivalent within two business days of discovery.

8.0 APPENDIXES

Appendix 1 – Supplier Definition Table for Applicability

SUPPLIER TYPE	DEFINITION
Type 1: BTP – Customer Design Part Manufacturer	<p>BTP - Customer Design Part Manufacturer Supplier of products and/or assemblies with Collins Aerospace -designated part numbers as defined on proprietary Collins Aerospace drawings or other technical definitions (also known as BTP parts).</p> <p>Note 1: Castings and forgings are considered BTP – Customer Design Parts.</p> <p>Note 2: This includes suppliers that purchase parts from third parties manufactured against Customer proprietary drawings even though they may not add any additional value themselves.</p> <p>Note 3: This includes suppliers that modify COTS or Raw Material per Customer Design.</p>
Type 2: Design Responsible Supplier – Build to Spec	<p>Supplier of products defined by a design/drawing proprietary to that supplier and linked to a Collins Aerospace part number using a Collins Aerospace -referenced drawing and/or other PO requirements (e.g., Category 1, Source Control, Source Design, Engineered Item).</p> <p>Note 1: Collins-referenced drawings may contain additional Collins Aerospace requirements.</p> <p>Note 2: This includes suppliers that modify COTS or Raw Material per supplier design.</p>
Type 3: Distributor (Raw material and COTS)	<p>Organization carrying out the purchase, storage, splitting, and sale of products and not transforming, assembling, or otherwise modifying purchased product. Distributors are limited to raw material, industry standard, and COTS parts.</p>
Type 4: Special Process Supplier	<p>Supplier that provides special processes on Collins Aerospace products.</p>
Type 5: Calibration or Laboratory Service Provider	<p>Organization qualified to perform calibration services on Measuring and Test Equipment (monitoring and measuring equipment) used in the production of Collins Aerospace products and laboratory services to include material testing.</p>
Type 6: Industry Standard Part or Industry Standard Raw Material Manufacturer	<p>Manufacturer of raw material that conforms to an established industry or national authority-published specification (e.g., Aerospace Material Specification (AMS)).</p>

Appendix 2 – Applicability Table

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COL-ASQR-PRO-0003 Section	Type 1: BTP – Collins Aerospace Design Part Manufacturer	Type 2: Design Responsible Supplier	Type 3: Distributor (Raw Material and COTS)	Type 4: Special Process Supplier	Type 5: Calibration or Laboratory Service Provider	Type 6: Industry Standard Part or Industry Standard Raw Material Manufacturer
5.1.1	X	X	X	X	X	X
5.1.2	X	X	X	X	X	X
5.1.3	X	X				
5.1.4	X	X		X	X	
5.1.5	X	X		X	X	
5.1.6	X	X		X	X	
5.1.7	X		X	X		
5.1.8	X		X			
5.2	X	X	X	X	X	X
5.3	X	X	X	X	X	X
5.4	X	X	X	X	X	X
5.5	X	X	X			X
5.6	X	X	X	X	X	X
5.7	X	X	X	X	X	X
5.8	X	X				
5.9	X	X	X	X	X	X
5.10	X	X	X	X	X	X
5.11	X	X	X	X	X	X
5.12	X	X	X	X	X	X
5.13	X	X	X	X	X	X
6.1	X	X	X			

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6.2	X	X	X			
6.3	X	X	X			
6.4	X	X	X			
6.5	X	X	X	X	X	X
6.6	X	X	X	X		X
6.7	X	X	X	X	X	X
6.8	X	X		X	X	X
6.9	X	X		X	X	X
6.10	X	X	X	X		
6.11	X	X		X		
6.12	X			X		
6.13	X	X	X	X		
6.14.1	X			X		
6.14.2	X			X		
6.14.3		X				
6.14.4	X	X		X		
6.15	X	X	X	X	X	X
6.16	X	X	X	X	X	X
6.17	X	X	X			
6.18	X	X	X			
7.1	X	X	X	X	X	X

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7.2	X	X	X	X	X	X
7.3	X	X	X	X		
7.4	X	X	X	X		X
Appendix 1	X	X	X	X	X	X
Appendix 2	X	X	X	X	X	X

X indicates which section of COL-ASQR-PRO-0003 is applicable to which Supply Type.

9.0 SUPERSEDED DOCUMENT(S)

DOCUMENT NUMBER	DOCUMENT TITLE
COL-ASQR-PRO-0003-05	Aerospace Supplier Quality Requirement

10.0 FLOWCHART(S)

N/A

11.0 REVISION HISTORY

REVISION	DESCRIPTION	MODIFIED ON
00	Initial Issue.	January 2, 2019
01	Joint BU discussion and revision of similar processes.	October 7, 2019
02	Updates were made to the entire document by SBU/sites collaboration discussions and reviews. Supplier Type definitions and Applicability Table were added to the Appendix of this document.	June 7, 2021
03	Updated to reflect changes made in ASQR-01 Revision 13. Updates included transferring document to the new template and quality control action requirements table removal. Revision reflects updates and edits from Supplier Flow	December 5, 2022

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REVISION	DESCRIPTION	MODIFIED ON
	Down Structure Event with input and representation from all Collins SBUs.	
04	Document was reformatted and the requirements from ASQR-01 Rev 13 have been incorporated per the One Collins Common Supplier Flow Down initiative.	October 2, 2023
05	Updated document to correct a typographical error made in appendix 2 for the applicability table. Section 7.3 for nonconformity is applicable to type 2 (Design Responsible) and type 4 (Special Process) suppliers.	May 6, 2024
06	Document was updated to include torque requirements, configuration controls, addition of the AS9125 standard, and clarification to several sections. Updated definitions to align with the Collins Aerospace Acronym-Defections Glossary.	April 7, 2025

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