

ADDITIONAL QUALITY ASSURANCE REQUIREMENTS – The below terms and conditions supplement the quality assurance provisions set forth in the applicable Contract or Agreement between the Parties (i.e. the BCA Supply Chain Agreement (BSCA), SBP, GTA, etc.).

Sections, sub-sections, and individual items the Seller shall flow-down to its Supply Chain are identified by “(Flow-down to Supply Chain).”

Section 1: Quality System

- a) Seller shall maintain an accredited Industry Controlled Other Party (ICOP) certification to the applicable Aerospace Standard(s) stated below including equivalent international aerospace standard(s).
- b) Seller shall ensure compliance with Boeing document D6-82479 “Boeing's Quality Management System (BQMS) Requirements for Suppliers” as may be revised from time to time, including Section 2 requirements for Boeing Recognition of Quality Management System Accredited Certification, Section 3 Supplemental Boeing Quality Requirements and the applicable appendices and addenda contained herein.
- c) Boeing reserves the right to make final determination of Seller's compliance to the below aerospace standards.
- d) Seller shall achieve and maintain a quality management system (BQMS) acceptable to Boeing for Products procured under this Agreement. Seller may view additional BQMS information by selecting "Supplier Quality" from the menu bar of "Doing Business with Boeing" home page located at the following URL address: <http://www.boeingssuppliers.com>. When entering the URL, use lower case letters only.
- e) All work performed by Seller shall be in accordance with one or more of the below listed Aerospace Standards. The Aerospace Standard(s) applicable to Seller's statement of work is determined by Boeing Purchase Order (PO) Note or Quality Clause set forth by Boeing purchase contract or purchase order.

Aerospace Standards and applicable PO Notes or Quality Clauses:

- Document AS9100 "Quality Management Systems – Requirements for Aviation, Space and Defense Organizations" as may be revised from time to time, which is incorporated herein and made a part hereof by this reference. Any one of the following PO Notes apply AS9100 certification to the Seller: Q20, Q21, Q22, Q23 and Q29.
- Document AS9110 "Quality Management Systems - Requirements for Aviation Maintenance Organizations" as may be revised from time to time, which is incorporated herein and made a part hereof by this reference. Any one of the following PO Notes used in conjunction with PO Note Q01 apply AS9110 certification to the Seller: Q41, Q42, Q44, Q45, Q46 and Q47.
- Document AS9120 "Quality Management Systems - Requirements for Aviation, Space and Defense Distributors" as may be revised from time to time, which is incorporated herein and made a part hereof by this reference. PO Note Q33 applies AS9120 certification to the Seller.
- Document AS9103, "Aerospace Series– Quality Management Systems - Variation Management of Key Characteristics" as may be revised from time to time, which is incorporated herein and made a part hereof by this reference. PO Note Q21 in conjunction with Q29 applies AS9103 conformance to the Seller.
- Document AS9115, "Quality Management Systems – Requirements for Aviation, Space and Defense Organizations – Deliverable Software" as may be revised from time to time, which is incorporated herein and made a part hereof by this reference. PO Note Q22 in conjunction with Q29 applies AS9115 conformance to the Seller.

Sub-section A: Aerospace Quality Management System (AQMS) Certification

Boeing recognition of Seller's AQMS certification does not affect Boeing's right to conduct audits and issue findings at the Seller's facility. Boeing reserves the right to provide Boeing-identified quality system findings, associated quality system data, and quality performance data to Seller's certification or registration body (CB).

Sub-section B: Application of Acceptance Authority Media (AAM):

- a) Seller shall comply with the AS/EN/JISQ 9100 requirements and 14CFR Part 21.2 regarding the application of the Acceptance Authority Media (AAM) requirements.
- b) Seller shall, within its organization and its supply chain, ensure that the use of AAM is clearly defined within its Quality Management System (QMS).
- c) Seller shall, upon Boeing request, be able to demonstrate evidence of communication to its employees and to its supply chain; use of AAM must be considered as a personal warranty of compliance and conformity.
- d) Seller shall maintain compliance to the AAM requirements by assessing its process and supply chain as part of its internal audit activities. The areas of focus of this assessment shall include but not limited to:
 - Authority Media Application Errors (i.e. Omission, Typos, Legibility, etc.)
 - Authority Media Application Untimely Use (i.e. Documentation is not completed as planned, "Stamp/Sign as you go", etc.)
 - Authority Media Application Misrepresentation (i.e., uncertified personnel, Falsification of documentation, Work not performed as planned, etc.)
 - Authority Media Application Training Deficiencies (i.e. Ethics, Culture awareness, Proper Use of authority media, etc.)

Sub-section C: Purchase Order Notes

Individual Purchase Order (PO) notes, as revised from time to time, are applicable when identified on the Contract/Purchase Order. Standard PO note codes and affiliated text are available within the "Supplier Quality" webpage at: <https://suppliers.boeing.com>

Section 2: Production Certificate and Business Requirements – General

- a) **English Language (Flow-down to Supply Chain):** When specifically requested by Boeing, Seller shall make specified quality data and/or approved design data available in the English language.
- b) **Quality Metrics & Reporting:** When requested by Boeing, Seller agrees to work with Boeing to develop and implement processes designed to improve Seller's quality performance during the entire Product life cycle. Processes for improvement shall include sufficient detail to allow Boeing to evaluate Seller's progress. When requested by Boeing, Seller agrees to share performance data including but not limited to design, production and in-service support data.
- c) **Seller's Inspection:** Seller shall inspect or otherwise verify that all Products or Services, including those components procured from or furnished by subcontractors or suppliers or Boeing, shall comply with the requirements of the Order prior to shipment to Boeing or Customer. Seller shall be responsible for all tests and inspections of the Product during receiving, manufacture and Seller's final inspection. Seller agrees to furnish copies of test and/or control data upon request from Boeing's Procurement Representative.
- d) **Seller's Statistical Product Acceptance (Flow-down to Supply Chain):** Seller shall perform 100% inspection for in-process and final inspection, or Seller shall conform to requirements of document AS9138 "Aerospace Series – Quality Management Systems Statistical Product Acceptance Requirements" as may be amended from time to time. With the exception noted herein Seller's statistical sampling procedure/plan conformance to AS9138 with minimum



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protection levels meeting SAE AS9138 Table A1 and C=0 will constitute Boeing Quality approval subject to restrictions noted in AS9138, Section 4.3 Safety/Critical Characteristics, and part/product Design Data sampling requirements and/or prohibitions.

Buyer reserves the right to disallow a supplier's statistical methods for product acceptance for specific sites/ programs, parts or characteristics, and to conduct surveillance at Seller's facility to assess conformance to the requirements of AS9138.

Aerospace standards such as AS9138 can be obtained from SAE International at:

<http://standards.sae.org>

- e) **Regulatory Approvals (Flow-down to Supply Chain):** For aircraft regulated by Civil Aviation Authorities, regulatory approval may be required for Seller to make direct sales (does not include "direct ship" sale through Boeing) of modification or replacement parts to owners/operators of type-certificated aircraft. Regulatory approval, such as FAA Parts Manufacturer Approval (PMA), is granted by Civil Aviation Authorities. Seller agrees not to engage in any such direct sales of Products or Services under this Agreement without appropriate regulatory approval. For Seller proprietary parts, Seller agrees to notify Boeing of application for regulatory approval and the subsequent approval or denial of same. Upon receipt of proof of applicable regulatory approval, Boeing may list Seller in the illustrated parts catalog as seller of that part. Unless explicit contractual direction is given to the contrary, no articles (or constituent parts thereof) ordered by Boeing Commercial Airplane Co. purchased under this agreement shall contain any Federal Aviation Administration- Parts Manufacturer Approval (FAA-PMA) markings and the accompanying paperwork (e.g., packages, shippers, etc.) shall not contain any FAA-PMA markings.
- f) **Supplier Funded Source Inspection:** If the Seller fails to achieve and maintain Bronze quality acceptance rate for BCA/BGS as shown in Boeing Enterprise Supplier Tool (BEST) or its equivalent, the Seller may be subject to Supplier Funded Source Inspection (SFSI). Furthermore, without regard to BEST or equivalent metrics, if upon Boeing's determination, after coordination with Seller, that Seller's quality failures represent a chronic or substantial impact to Boeing, then SFSI will be implemented at the Seller's expense.
- g) **Verification of Corrective Action:** When Boeing notifies Seller of a detected nonconformance, Seller shall immediately take action to eliminate the nonconformance on all products in Seller's control. Seller shall also maintain verification that root cause corrective action has occurred and has resolved the subject condition. Boeing reserves the right to review the verification data at Seller's facility or have the data submitted to Boeing.
- h) **Corrective Action Report:** When Seller is requested to submit a corrective action report, the report shall be submitted within the time allotted and format specified by Boeing. In the event Seller is unable to respond within the allotted time frame Seller shall submit a written request for extension, subject to Boeing's approval. The request for extension shall include the reason for the extension and the additional time needed to complete the report. If after initial submittal to Boeing Seller determines a revision is required to the report Seller shall immediately notify Boeing in writing of such revision. The notification of revision must highlight the change from initial submittal and include the purpose of the revision.
- i) **Acceptance/Rejection of Seller's Root Cause/Corrective Action:** Boeing reserves the right to reject any root cause and/or corrective action determination provided by the Seller, and may request subsequent investigation and/or corrective action to either Boeing or Seller-initiated corrective action requests. If the Seller is late in responding to corrective action requests by Boeing, or if Boeing requires subsequent corrective action, Boeing reserves the right to withhold acceptance of shipments either at source or destination until Seller corrective action is submitted to Boeing's satisfaction.
- j) **Work Transfer (Flow-down to Supply Chain):** (Per AS9100, from one organization facility to another, from the organization to a supplier, from one supplier to another supplier.)

Seller will not and will ensure its supply chain will not, initiate a movement or transfer of

the location to be performed without Boeing's prior written approval. Seller shall complete Boeing form X35781 "Supplier Initiated Work Transfer Notification" (including required implementation plans), and submit to Boeing for written approval.

Notification shall be prior to the manufacturing start date of the first part associated with the work transfer.

Note: See the FAA's website, www.faa.gov, for Category Parts List.

* X35781 "Supplier Initiated Work Transfer Notification" form is available on the Boeing Supplier Portal.

k) Manufacturing Planning (Flow-down to Supply Chain): "Controlled" or "Approved" planning requirements are derived from the part specific Engineering requirements. Planning changes to "controlled" or "approved" planning requires compliance with the associated process prior to implementing proposed changes within seller's production system and commencing manufacture. Seller shall submit manufacturing planning changes to Boeing in accordance with the requirements described within the associated process for approval/re-approval.

Boeing engineering qualification/approvals include material & process approvals and quality engineering approvals (but not limited to):

- Manufacturing plans (e.g. **D6-1276, D6-17781, BSS7085**)
- Part Qualifications (e.g. **BSS7029, BSS7082, BSS7119**)
- Process Control (e.g. **D6-36232**)
- Boeing Level 3 Approvals (e.g. **BAC5980**)
- Statistical Sampling Plans (e.g. **BSS7286**)

l) First Article Inspection/Boeing First Article Requirement (Flow-down to Supply Chain):

Seller shall perform First Article Inspections (FAI) in accordance with AS/EN/SJAC 9102, Aerospace First Article Inspection Requirement. Boeing may allow alternate methods of meeting the FAI requirement provided Seller's plan is approved by Boeing's Supplier Quality Representative (SQR) prior to initiation of the activity (e.g. for installation level drawings or wiring).

Boeing reserves the right to conduct surveillance of the Seller's FAI, referred to as Boeing First Article Inspection (BFAI). BFAI may include in-process inspections to be accomplished during performance of Seller's FAI. When a BFAI is required, Seller will be notified via the Supplier Quality supplier data system. Seller shall coordinate and schedule BFAI activity with Boeing's SQR prior to start of related procurement, manufacturing, and/or processing. In the event a BFAI of Seller's FAI is scheduled, supplier shall make available to the Boeing's SQR the following:

- 1) Applicable Purchase Document, material/process certifications, manufacturing and inspection records; including inspection plans developed to identify progressive inspection checkpoints for the FAI as a result of coordination and planning with Boeing's SQR.
- 2) Applicable Design Data
- 3) Applicable material review actions
- 4) Applicable acceptance and qualification test results
- 5) Applicable record(s) of Buyer approval for non-Buyer drawing and test procedures.

m) FOD Prevention Program (Flow-down to Supply Chain): Seller is required to establish and maintain a FOD prevention program in compliance with AS/EN/SJAC 9146 Foreign Object Damage (FOD) Prevention Program -- Requirements for Aviation, Space, and Defense Organizations.

Aerospace standards such as AS9146 can be obtained from SAE International at <http://standards.sae.org>

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- n) **Excess Inventory (Flow-down to Supply Chain):** Seller shall control all inventory of Boeing proprietary product that is in excess of contract quantity in order to prevent product from being sold or provided to any third party without prior written authorization from Boeing. Additionally, Seller shall not provide Product from excess inventory that was previously rejected or returned by Boeing without prior written authorization from Boeing. When Seller fulfills an order in support of this SBP with Product from excess inventory, for which Seller was the original manufacturer, Seller shall be able to demonstrate traceability to the original Boeing purchase document that authorized manufacture of the Product when requested by Boeing.
- o) **Tooling:** Seller shall comply with the requirements of Boeing document D33200, Boeing Suppliers' Tooling Document. It is the Seller's responsibility to comply with the latest revision of these documents.
- p) **Boeing Document D1-4426, "Approved Process Sources" (Flow-down to Supply Chain):** Seller shall comply with Boeing document D1-4426 "Approved Process Sources" (<http://active.boeing.com/doingbiz/d14426/index.cfm>). This document, subject to revision from time to time, defines the approved sources for special processing, composite raw materials, composite products, aircraft bearings, designated fasteners, and metallic raw materials. The Seller's purchasing information shall conform to the purchasing data requirements of Boeing document D1-4426 Appendix D. These purchasing data requirements can be found at: <http://active.boeing.com/doingbiz/d14426/Appendix-D.pdf>

Section 3: Production Certificate and Business Requirements Specific to Seller's Statement of Work

- a) **Boeing Document D6-51991 (Flow-down to Supply Chain):** "Quality Assurance Standard for Digital Product Definition (DPD) at Boeing Suppliers." When Type Design Digital Product Definition (DPD) data is utilized in manufacturing, inspection and sub-tier flow down of product definition, Seller shall have a quality system to control Type Design DPD data to the extent necessary to fulfill program requirements. Seller must obtain Boeing DPD capability approval.
- b) **Drop Ship Requirements for Boeing Suppliers:** When Seller is contractually required to Drop Ship articles on Boeing's behalf, Seller shall adhere to the requirements contained within Boeing Document D6-83720 -"Drop Ship Requirements for Boeing Suppliers".
- c) **FAA Form 8130-9 "Statement of Conformity" (Flow-down to Supply Chain):** When Seller is approved to complete FAA Form 8130-9 "Statement of Conformity" on Boeing's behalf, Seller shall do so in accordance with Boeing document D6-83570 "8130-9 Conformity Inspection Requirements" and assigned FAA Form 8120- 10 "Request for Conformity" instructions.
- d) **AS9117 Delegated Product Release Verification (Flow-down to Supply Chain):** When Seller delegates product verification, Seller shall conform to the requirements of AS9117, "Delegated Product Release Verification," as may be amended from time to time. Buyer reserves the right to conduct surveillance at Seller's facility to determine that Seller's quality system conforms to the requirements of AS9117.

AS9117 establishes minimum requirements for Seller's delegation of product verification. When delegating product verification, Seller is not relieved of its obligations under this contract.

Aerospace standards such as AS9117 can be obtained from SAE International at:
<http://standards.sae.org>
- e) **Clad Aluminum Exterior Aircraft Skins, Boeing document D6-9002 (Flow-down to Supply Chain):** Effective January 1, 2017, all suppliers providing clad aluminum exterior aircraft skins per Boeing document D6-9002, "Appearance Control of Clad Aluminum Exterior Skins" shall inspect the skins per D6-85354, "Skin Quality Inspection of Clad Aluminum Exterior Skins".
- f) **Operator Self-Verification Program (Flow-down to Supply Chain):** If Seller uses an Operator Self-Verification (OSV) program, Seller shall comply with the requirements set forth in SAE industry standard AS9162, "Aerospace Operator Self Verification Programs", as may be amended from time to time. Buyer reserves the right to conduct surveillance at Seller's facility to



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determine that Seller is compliant to the requirements of AS9162.

- g) **Request for Boeing Material Review Board (MRB) Dispositions:** When the supplier does not have delegated Material Review Authority (MRA), or the nonconforming condition requires a Boeing disposition, Seller shall request material review disposition through the Request for Assistance (RFA) using the Material Review Record (MRR) or the Supplier Nonconformance Notification (SNN), in accordance with Boeing document D6-84111.
- h) **Material Review Authority (MRA):** Seller shall not apply dispositions of use-as-is or repair to nonconforming products they produce for installation on Boeing commercial airplanes unless Boeing has delegated MRA to the seller in accordance with Boeing document D-13709-4, or Boeing document D-13709-5. The term “nonconforming articles” includes all nonconforming materials, processes, components, and subassemblies, including those of seller design, that do not conform to their type design definition data regardless of whether BCA requirements (e.g. as specified by Specification Control Document (SCD)) have been violated.
- i) **Customer Sensitive and Aesthetic Acceptance Criteria:** Seller shall assess and process Use-As-Is or Repair dispositions in accordance with the D6-86587 “Boeing Commercial Airplanes (BCA) Customer Sensitive Items and Aesthetic Acceptance Criteria”.
- j) **Supplier Notice of Escapement (NoE): (Flow-down to Supply Chain):** When Seller has found nonconforming condition on parts that have already shipped to Boeing, Seller must submit a Notice of Escapement to Boeing.

For Product(s) which have been delivered to or on behalf of Boeing and Seller knows or suspects that such Product(s) are or may be nonconforming, Seller shall notify Boeing in writing as set forth herein. This applies to new or initial instances of an escape or potential escape, escapes or potential escapes that were previously identified and isolated by Boeing but Seller identifies additional units or a nonconformance cannot be verified for the same nonconformance condition.

Seller shall provide:

- a. Affected process(es) or Product(s) part number(s) and name(s);
- b. Description of the nonconforming condition and the affected engineering requirement (i.e., what it is and what it should be);
- c. Quantities, shipping dates, purchase orders and destinations of delivered shipments;
- d. Suspect/affected serial number(s) or date codes, lot numbers, or other part identifiers and airplane line units when applicable.

At a minimum, seller shall notify Boeing within 3 days from the day of discovery of known or suspect discrepancy. Submit information to Boeing in accordance with instructions listed in reference documents herein.

If the investigation to obtain all required information is not completed within 3 days from the day of discovery, submit supplier required information in section a and b and any known information elements listed in c and d to Boeing using the Preliminary Escapement Notification Form X39312. This notification requirement is applicable to all sellers, including suppliers with D-13709-4 Appendix C Escaped Product Disposition authority.

All information listed in section a, b, c, and d shall be submitted to Boeing within 10 business days from the day of discovery unless otherwise agreed upon by Boeing on a case by case basis. For sellers with D-13709-4 Appendix C Escaped Product Disposition authority, instead of submittal to Boeing, seller must provide notification to the seller’s delegated material review engineers for



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technical review within 10 business days from the day of discovery unless otherwise agreed upon by Boeing on a case by case basis.

If the nonconformance condition has been previously identified by Boeing using a nonconformance record and a Boeing corrective action notification included Immediate Correction (IC) or Immediate Action (IA) and Root Cause Corrective Action (RCCA) has been received, the Seller shall notify the Boeing investigator identified on the notification that additional parts are affected (same part number(s)/same condition).

A NOE can only be used when there is a nonconformance or suspected nonconformance. A NOE is not appropriate when the component does not meet airplane level requirements (non-compliant).

** Do not send Engineering design errors to BCA Supplier Quality Special Investigation Group using the NOE process.**

For Product(s) delivered which have been determined to contain engineering errors, Seller shall provide written notification to Boeing within 3 days when It is determined that Product shipped, while meeting Seller Product definition, does not meet, or is suspected to not meet the airplane design requirements. The written notification shall include:

- a. Affected process or Product number and name;
- b. Description of the problem (i.e. what it is and what it should be);
- c. Quantity, dates, purchase orders and destination of shipment(s) delivered
- d. Suspect/affected serial numbers or date codes when applicable.

Written notification shall be sent to:

- The Boeing procurement representative;
- The Boeing SQR that has oversight of the Seller's facility; and
- Seller and others who do not use the problem report process shall submit their notification through the following group mailbox: 787DE-PartnerDesignErrors@boeing.com.

The requirements set forth above shall be flowed down by Seller to Seller's supply chain, with the modification that all supply chain notification shall pass through Seller (and not made directly from the supply chain to Boeing). Seller shall notify Boeing of all sub-tier escapes and design errors in accordance with the respective communication process set forth herein. For purpose of this note, supply chain shall mean Seller's complete network of material, equipment, information and services integrated into the Products and Services.

Seller shall reference the following documents for additional NOE instructions and requirements:

- a. The D6-84111 Document
- b. The D012Z026-01 Document (787 only);
- c. The T89 Purchase Order Note (if applicable, all programs);
- d. The D012Z028-01 Document (if applicable, 787 only)

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