

PURCHASE ORDER ATTACHMENT A

COX & COMPANY SUPPLIER PRODUCT ASSURANCE PROVISIONS SPAP-1

The following Product Assurance Provisions, with their terms and conditions, become an integral part of the contract to the extent specified in the Purchase Order. These provisions supplement, but do not supersede, the presently existing terms and conditions of the Purchase Order. The seller will include in each shipment to Cox, in addition to the packing sheet, objective evidence of quality demonstrating compliance with applicable Specifications.

- 1) **CERTIFICATION OF COMPLIANCE:** With, or preceding each shipment to Cox against this Purchase Order, the Seller shall assure in writing, with each lot to Cox, that the following requirements have been met:
 - 1) Conformance to all contract (Purchase Order) Product Assurance System requirements:
 - 2) Retention, by Seller or Manufacturer, of substantiating documentary evidence of inspections and/or tests of items shipped, said documentation shall be made available to Cox or the government on request:
 - 3) Conformance to specification requirement, if any, regarding chemical and physical properties of raw materials used. The certification shall contain the signature and title of an authorized representative of the Seller:
 - 4) The certificate also must include Date, Cox Work Order or Purchase Order, Seller's Name and Address, Lot Batch, Serial Number, Packing Slip Number, or other traceability identification information.
- 2) **COPIES OF OBJECTIVE EVIDENCE:** Cox & Company may periodically request, at its option, and Seller shall provide at no cost within 20 days, legible photocopies of substantiating objective evidence for any certification of compliance provided by Seller.
- 3) **PHYSICAL/CHEMICAL TEST REPORT:** A signature validated and legible report must accompany each shipment made to Cox against each item of this Purchase Order.

The report shall indicate the percentage of each element that makes up the chemical composition and/or quantitative physical properties of all raw materials. The report shall specifically identify the material by reference to the number of the melt, the cast heat lot, or other similar designation, and must indicate the applicable specification, revision and the Purchase Order Number.
- 4) **CERTIFIED TEST DATA:** Certified Test Data or a true copy thereof, on stationery of the organization performing the testing, shall be supplied to Cox with each shipment. This report must contain all factual information necessary to demonstrate conformance to the requirement reflected on the drawing or in the Purchase Order. The test data shall show quantitative test results versus quantitative requirements and permissible tolerances for all values measured on serialized items. For lot-controlled items, (non-serialized such as electronic components, etc), the test data shall show qualitative (attribute) test results versus quantitative requirements and permissible tolerance for all values measured.
- 5) **RUBBER CURE DATE:** The Seller shall be responsible for legibly and permanently identifying each part, or if size or form prohibits, marking each container with the rubber cure data, date of manufacture, and shelf life. Assemblies shipped with rubber parts therein shall be marked with assembly date. Example, if cure date is August 1990, identify as 3Q 90. Sellers packing sheet and/or shipper and certification must specify cure date.
- 6) **IDENTIFICATION LIMITED SHELF LIFE:** Materials with limited shelf life, organic material, epoxy, paint, adhesives, etc. shall reflect the date of manufacture, lot number, manufacturer's shelf life, or manufacturer's shelf life expiration date, and applicable specification on the container. Each container must be identified. Not more than one quarter (¼) of the shelf life shall have expired, upon receipt, without prior authorization, for each shipment from Cox & Company.
- 7) **ELECTROSTATIC DISCHARGE PROTECTION:** Electronic parts or assemblies that are electrostatic discharge sensitive (EDS) to voltages of +2,000

volts or less shall be suitably protected from static fields and discharges during all supplier manufacturing processes and distributor handling including item packaging and shipment. ESDS parts or assembler not suitably protected shall be subject to rejection and replacement.

8) SELLER INSPECTION SYSTEM:

A) The seller shall, in the performance of this Purchase Order, provide and maintain an inspection system which is in conformance with Military Specification MIL-I-45208 (issue in effect as of date of contract, or as specified in the Purchase Order (or equivalent). Including Military Standard-45662 calibration system requirements (or equivalent).

B) The distributor shall implement requirements of MIL-I-45208 or equivalent applicable to those steps in the overall design, manufacture and delivery process over which he exercises control; e.g. When applicable, purchase from Government-approved Qualified Parts Lists (QPL) sources, retain the sub-tier's C of C and data, handling, storage and delivery. In addition, the Manufacturer or Distributor shall flow down to the sub-tier suppliers, those Product Assurance requirements appropriate to the product or service delivered. The Buyer reserves the right to assure, by audit, that effective procedures exist and are implemented for the product acquired by the Purchase Order.

C) The supplier shall have, and maintain a configuration control system for Software/Firmware used to manufacture the listed P.O. item(s). The system shall assure:

- 1) Suitable unique identification of the Software (including revision letter, date of generation and its relationship to the configuration of the purchased item;
- 2) Cox Directed Hardware Changes result in an impact analysis and change, as necessary, of the current software configuration;
- 3) Supplier-Initiated changes following Cox acceptance of the initial lot shall have no impact on the item's form, fit or function, unless specifically authorized by Cox in writing.

D) The supplier shall develop and employ Quality Assurance/Inspection system requirements, applicable to those products, materials, or processes he elects to Sub-Contract. Such requirements shall be included in each supplier Purchase Order.

E) Supplier shall notify Buyer of any nonconforming product detected by the Supplier

prior to shipment or after delivery to the Buyer, and obtain Buyer approval for nonconforming product disposition.

F) Subject to applicable national security regulations, Buyer and Buyer's representatives shall have the right of access, on a non-interference basis, to any area of Seller's or Seller's supply chain sub-tier premises where any part of the work is being performed. Seller shall, without additional costs to Buyer, provide all reasonable in-plant accommodations, facilities, and assistance for the safety and convenience of the Buyer and the Buyer's representatives in the performance of their duties.

G) Seller shall maintain records of this transaction and all associated records for a minimum of 10 years from date of shipment, unless otherwise specified in the Purchase Order.

H) Seller shall flow this requirement down to its sub tier supply chain suppliers as a condition of this contract.

I) Export Control: Prior to transmitting Cox technical data to other parties Seller shall request export control requirements from Buyer and comply with those requirements.

J) Supplier shall promptly notify Cox of any changes in the management representative with assigned responsibility and authority for the quality system.

K) When specifically requested by Cox, supplier shall make specified data available in the English language.

L) Supplier shall immediately notify Cox of any change to the manufacturing location of the contracted part or assembly.

M) Supplier shall notify Cox of any Work Transfer as defined in AS9100C 7.1.4.

N) Allowances for Visual Imperfections: Unless otherwise specified, allowances for visual imperfections is per Cox WI-21-003-01 "Visual Inspection Standard for Procured Materials" which may be obtained from Cox's Website at <http://www.coxandco.com/about/quality.html>

9) NHB5300.4 1C: The seller shall, in the performance of this Purchase Order, provide and maintain an inspection system which is in conformance with NHB5300.4(1C) Inspection system provisions for Aeronautical and Space System materials, parts component and services.

10) QUALITY PROGRAM: The Seller shall provide a Quality Assurance Plan to serve as basic documentation of the Seller's quality program tailored to the deliverable material and based on the contract statement of work. The plan shall identify the Seller's management, policies, standard practices, job instructions and/or detailed work instructions to be used in implementing the quality program. The plan shall describe requirements for quality throughout all areas of contract performance; for example fabrication, processing, assembly, inspection, test, packaging, storage, and shipping.

The plan shall include flow charts showing the complete flow of material from source inspection and/or installation upon receipt, including first article inspection, through all manufacturing processes to installation and final shipment. The plan shall be submitted for review and approval by Cox Product Assurance. Plan is to be submitted no later than 45 days after contract award. The plan shall include configuration control of software used to manufacture the product.

- 11) CUSTOMER SOURCE INSPECTION:** All items covered by this Purchase Order are subject to source inspection by the Cox Customer's Quality Representative. The Supplier shall make the necessary provisions to permit Cox, Customer and/or Government to verify the quality of work and material. The Seller shall provide the buyer and Government Personnel access to any and all areas, including those of lower tier suppliers, where work is being done or scheduled to be performed under this purchase order.
- 12) COX SOURCE SURVEILLANCE AND INSPECTION:** Surveillance by Cox is mandatory at seller's facility during and upon completion of manufacture. The Seller shall provide all necessary inspection data, facilities and equipment. Seller shall notify Cox at least 48 hours in advance of performing acceptance test or intent to ship; and shall withhold shipment pending necessary action by the Procurement Quality Assurance Representative. Final acceptance of material will be at Cox. Evidence of source acceptance must accompany each shipment. Waiver of Source Inspection can only be authorized by Procurement Quality Assurance Management. Authorization to ship parts without source inspection shall be stated on the packaging slip. Date and name of person authorizing shipment shall also be stated. The Seller's Quality Manager shall notify the buyer that they are ready for source inspection only after completion and acceptance of units to be submitted by Sellers Quality Organization.
- 13) GOVERNMENT SOURCE INSPECTION:** Is required prior to shipment from your plant. Upon receipt of this order, promptly furnish a duplicate copy to the Government representative who normally services your Plant so that appropriate planning for Government inspection can be accomplished. GSI does not replace prime contractor inspection or responsibilities.
- 14) TOOL PROOFING:** Shall be accompanied by Cox Product Assurance on supplier furnished Cox authorized tooling. All such tooling shall be identified to show part number, drawing change status, tool ownership, and inspection acceptance. Seller shall not perform modification on any tooling unless provided by contract change. All modifications and changes must be inspected and approved by Cox Product Assurance.
- 15) APPROVED PROCESS VENDORS:** All processing such as welding, heat treating, brazing, electroplating, cleaning, anodizing, soldering, chemical filming, etc. shall be accomplished by Cox approved process vendors, or Cox and Company customer approved process sources. Cox will provide a list of approved vendors upon request, and each shipment to Cox must be inspected and approved by Cox Product Assurance.
- 16) SOURCE SURVEILLANCE:** The seller shall provide the Buyer, the Customer, and Government Personnel access to any and all areas, including those of lower tier suppliers, where work is being done or scheduled to be performed under this purchase order.
- 17) NON-DESTRUCTIVE INSPECTION REQUIREMENTS:** The appropriate, non-destructive inspection specification contained in this Purchase Order and/or drawing is required for all articles covered by this purchase order. The inspection shall be performed by Cox approved sources and permanent objective evidence of inspection results supplied to Cox with each shipment.
- 18) CERTIFICATION OF CALIBRATION:** A certification of calibration attesting to accuracy of the items procured on this Purchase Order must be supplied with each shipment. The certification must contain all of the test parameters necessary to demonstrate conformance to manufacturer's specifications, and must be traceable to the National Institute of Standards and Technology (NIST) and shall meet the requirements of MIL-STD-45662A.
- 19) QUALITY REQUIREMENTS FOR HIGH-STRENGTH BOLTS, SCREWS AND NUTS:** The Seller's acceptance of this Purchase Order and subsequent shipments to Cox shall constitute a warranty that all requirements specified are adhered to for hardware procurement and/or installation in

assemblies manufactured at the Supplier's facility. Certification from hardware manufacturer shall be furnished with each hardware shipment to Cox or shall remain on file at the Supplier when subject hardware is installed in an assembly.

- 20) IDENTIFICATION-DETAIL PARTS:** Detail parts and/or sub-assemblies manufactured to Cox drawings shall be identified with the Cox part number, blueprint revision letter, date of manufacture, and serial number when applicable. Vendor hardware manufactured to a Cox design shall be identified with the vendor logo per MIL-STD-130 and requirements. Miscellaneous hardware, such as off-the-shelf items, MIL. Spec. Parts, and other vendor-controlled items, shall be identified per applicable drawing, specifications, or purchase order requirement.
- 21) CERTIFICATE OF MATERIAL: Cox Furnished:** The supplier shall submit in writing with each lot, a document which certifies that material furnished by Cox is contained within the parts or assemblies submitted and that substitute material was not used for those parts. The certification must be signed by a duly authorized officer of the Supplier and list those items supplied by Cox by part number, nomenclature, and serial number, if applicable. Raw material shall be called out by the applicable specification.
- 22) TEST SPECIMENS:** This Purchase Order requires test specimens or coupons for lab analysis at Cox unless otherwise specified. The specimens shall be from the same lot batch or heat of material and shall have been processed with the represented parts. Specimen must be identified as to which process lot it represents.
- 23) ACCEPTANCE TESTING, PROCEDURE, AND REPORT:** Acceptance testing of each deliverable unit using a test procedure approved by Cox is required. The procedure to be used shall be submitted to Cox for approval at least thirty days (unless otherwise stated) prior to scheduled start of testing of the initial lot. As a minimum, the test procedure shall give by narrative and sketch, the methods and the order in which the tests will be performed, measurements to be made, and acceptance criteria. A copy

of the data sheet(s) to be used shall be listed. When instrument accuracy is specified as a percentage, it shall be stated whether the percentage pertains to the nominal value to be measured or is a percentage of instrument full scale. The test procedure shall contain caution and safety notations if appropriate. Data Item Description (DID) No. _____ is hereby incorporated into the Purchase Order. Existing acceptance test procedures and data sheets which satisfy these requirements may be submitted for approval. A signed copy of the completed data sheet(s) giving the actual (quantitative) test results shall accompany each unit.

- 24) THE MANUFACTURER SHALL IDENTIFY:** Each lot and/or heat treat number used in addition to specification marking requirements. Material shall be segregated and identifiable to lot/heat treat number when mixed lot fabrication occurs.
- 25) CRITICAL PARTS:** All items fabricated under this purchase order shall be traceable to raw material used.
- 26) SOLDERABILITY REQUIREMENT:** All solderable terminals/leads of each part shall be 100% tinned by hot solder dipping with QQ-S-571 or SW60 or SW63 solder and meet the solderability requirements of MIL-STD-202, method 208. A maximum of (100) parts shall be packaged in a single container. Each package shall be labeled with the name of the processor and date of tinning. Elapsed time from date of tinning to date of delivery shall not exceed 60 days.
- 27) PRINTED CIRCUIT BOARD MARKING:** All acceptable printed circuit boards shall be identified by the testing and/or manufacturing facility with a unique acceptance stamp in any suitable place which will not be covered by a component. Acceptance printed circuit boards whose available area is physically too small to mark with a stamp, shall have the test certification indicating acceptance of the subject part number and date code accompanying each lot. Lot results for all printed circuit boards shall be maintained by the manufacturer and shall be made available upon request.
- 28) WIRE:** Each spool of wire on this order must be legibly and permanently identified with Purchase Order Number, Gauge or Conductor Diameter, Cure Date (as possible); Military Specification Number (where applicable); the Cox Part Number (where applicable). Material, Resistance, Insulation (where applicable); Color, Spool Number (where

applicable); The Cox Part Number (where applicable).

29) LEAD WIRE: Each spool of wire on this order must be legibly and permanently identified with: Purchase Order Number, Gauge, or Conductor Diameter, Cure Date (as applicable); Military Specification Number (where applicable); The Cox Part Number (where applicable).

30) PRODUCT DATA: Vendor shall supply a Product Data or Catalog Sheet, providing as applicable, a Product Description, Application, Features, Specifications, typical Properties, Instructions for use, Instructions for Storage and Handling, Quality Assurance Instructions, and Dimensions.

31) PRINTED CIRCUIT BOARD ELECTRICAL TEST: Printed Circuit Boards shall be 100% electrically tested using the requirement of MIL-P-55-110. Electrical Requirement paragraphs 3.6.5.1. (Continuity) and 3.6.5.2. (Circuit shorts) and Electrical Inspection paragraphs 4.8.5.1, (Continuity) and 4.8.5.2. (Circuit shorts) and applies to type 1, 2, or 3, Boards (1= Single sided, 2= Double sided, 3=Multilayer Boards) as specifically defined below:

- 1) Circuit continuity shall be tested using a test voltage of 28 VDC and Limited to 0.2 amperes. There shall be no circuit whose resistance exceeds 10 ohms.
- 2) Circuit shorts shall be tested using a test voltage of 50 VDC. The resistance between mutually isolated lands, vias, feedthroughs and each Copper layer shall be greater than 10 megohms.

32) NOTICE OF DISCONTINUANCE: The Supplier has the obligation to perform and provide a formal notice of discontinuance to Cox & Company, Inc. at least six (6) months in advance of discontinuance of production of Cox ordered devices. This applies for at least three (3) years from completion of order. The Supplier has the obligation to provide Cox with the opportunity to make a lifetime buy.

33) FIRST ARTICLE INSPECTION: First Article Inspection shall be performed per Cox and Company document QP-042

34) FIRST ARTICLE INSPECTION: Supplier shall perform and document initial and updated First Article Inspections (FAI) per SAE Aerospace Standard AS9102. FAI reports shall be provided on or before receipt of the first affected shipment to Cox & Company. Electronic transmittal of FAI documentation is acceptable.

35) AS-9100: The Seller shall, in the performance of this Purchase Order, provide and maintain a Quality system which is in conformance with SAE Aerospace Standard AS-9100 (issue in effect as of date of contract, or as specified in the Purchase Order.)

36) Changes: No changes in design, material, manufacturing process, or test and inspection shall be made without written approval of Cox and Company.

37) AS-9006: The seller, in performance of this Purchase Order, shall provide and maintain a Software/Firmware Quality System which is in conformance with SAE Aerospace Standard AS-9006 (issue in effect as of date of contract or as specified in the Purchase Order.

38) Tooling: All tooling supplied/ manufactured for Cox or used to manufacture Cox products shall be identified to show: Program/File Name, Part Number, Revision Number, Tool Ownership and Inspection Acceptance. The following documentation shall be supplied by the Tool Manufacturer. All Material certifications to manufacture the tool/s, including all raw materials used, top level C of C for the tool, also all Drawing/Files, Travelers, Inspection /Test/Verification Data are required.

39) Revision Identification: The latest revision of the manufacturer's Drawing/Specification/Documentation in effect for all parts specified on this Purchase Order shall be used unless otherwise specified by Cox. The suppliers Certificate of Compliance shall call out the Revision used.

40) All prepregs must have, included in the box with prepreg, a Temperature Monitoring Device. Also all Prepregs must be packed in dry ice to maintain manufacturer's temperature specifications during shipment.

41) Counterfeit Parts: Electrical, electronic and electro-mechanical parts shall be from the Original

Component or Equipment Manufacturer (OM) or their franchised distributor. Supplier shall provide a certification from the OM with each shipment.

Supplier of non-electrical standard parts shall have a counterfeit detection process that is similar to and meets the intent of SAE AS5553. Distributors shall provide a certification from the OM with each shipment. Parts shall not be used or reclaimed and misrepresented as new. Supplier shall flow the requirements of this paragraph to its sub-tier suppliers at all levels.

- 42) Country of Origin:** Supplier shall contact Cox & Company prior to use of a foreign sub-tier supplier from a country that does not have a Bilateral Airworthiness Agreement (BAA) that covers materials and parts in effect with the United States Federal Aviation Administration. Information on current BAAs may be found on the FAA website <http://www.faa.gov> (search for Bilateral Agreement).

This requirements does not apply to standard parts (such as rivets, electrical connectors, grommets, etc.) produced to a United States industry standard (such as MIL, NAS, etc.)

Prior to sourcing raw metallic or raw composite material from countries with no BAA for that material, Supplier shall contact Cox & Company Procurement for additional material testing requirements

- 43) Composite Part:** When composite ply orientation is specified on the Cox drawing or specification, supplier shall provide a plan to Cox & Company defining their method for control and identification of composite ply orientation. The plan shall also include the mechanism by which ply orientation can be identified at Cox & Company. Written approval of the plan by Cox is required prior to shipment of first pieces.
- 44) Solder Process Control.** Soldering shall be in accordance with ANSI/J-STD-001 Class 3. Personnel performing soldering shall be certified to ANSI/J-STD-001 Class 3. Workmanship and inspection shall be in accordance with IPC-A-610 Class 3. Personnel performing inspection shall be certified to IPC-A-610 Class 3. Unless otherwise specified, the current revisions of both documents in effect on the date of the

purchase order shall apply. Supply may work to later revisions providing it does not inconvenience Cox & Company or increase price.

- 45) 14 CFR 145 Repair Station.** Work performed under this Purchase Order shall be by an FAA Certificated Repair Station under 14 CFR 145. Supplier shall be covered by an FAA approved Drug & Alcohol testing program. Supplier shall flow these requirements to all sub-tier suppliers and all levels. Supplier shall provide FAA form 8130-3 with the shipment.
- 46) Aesthetical Acceptance per Airbus M2831:** Parts shall meet the aesthetical acceptance requirements of Airbus document M2831. Supplier shall contact Cox buyer for part sketch and copy of M2831. Supplier shall apply suitable protection for Zone (Class) A surfaces and shall individually unit pack parts.
- 47) Machine Readable Information (MRI):** Supplier shall Verify MRI quality per MIL-STD-130 and provide inspection results including actual quality scores for each marking as defined in MIL-STD-130. Quality score cards shall be provided:
- With each shipment
 - On MS Windows compatible CD-ROM or similar portable media
 - in HTM or PDF format, one file per score card, and
 - with the file name of the concatenated UID (e.g. derived UII).
- For example: *D980856535-02000132.pdf*
- 48) PCB Serialization:** Each Printed Circuit Board (PCB) shall have a serial number assigned and applied in accordance with Cox document D-12527 "Printed Circuit Board Serialization"
- 49) Boeing Digital Product Definition (DPD) with ITAR**
 DPD: The information contained herein is digitally defined in whole or in part as defined in Boeing D6-51991 "Quality Assurance Standard for Digital Product Definition at Boeing Suppliers." (DPD). Prior to receipt of this data, supplier shall either
- (1) be approved by Boeing for DPD, and the scope of such approval shall encompass the data and processes used to fulfill purchase order requirements or
 - (2) utilize and process this data in accordance with a plan explicitly approved by the Cox and Company Quality Assurance.
- ITAR: The information contained herein contains technical data within the definition of the International Traffic in Arms Regulations, and is subject to the export control laws of the United States. Transfer of this data by any means to unauthorized persons, as defined by these laws, whether in the United States or

abroad, without an export license or other approval from the U.S. Department of State is expressly prohibited.

Supplier shall flow the requirements of this clause to all sub-tier contractors receiving this data.

End of Document

Document Revision Index

Rv	Date	Description
M	7/9./2013	Added Revision Index. Added Drug & Alcohol requirement to #45
N	7/30/2014	Added clause #46 – Aesthetical Acceptance per AirbusM2813.
P	12/18/2014	Added clause #47 – Machine Readable Information (MRI) for purchase of part identification labels. Added sections J thru M in clause 8 per Boeing X31764.
Q	01/09/2015	Revised #46 to require protection of Zone A surfaces and unit containers.
R	01/09/2015	Editorial changes to #42.
T	08/19/2015	Revised #47 to define file format and delivery media for UID scorecards. Corrected Revision Index at Rev R.
U	01/18/2016	Added SPAP #48
V	11/02/2016	Added subpart N to clause 8.
W	03/01/2016	Added SPAP #49 DPD w/ ITAR