Supplemental Purchase Order Conditions

SPOC Manual

Carleton Life Support Systems Inc. and Sargent Fletcher Inc., d/b/a Cobham Mission Systems Division
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SPOC 9999 Delegation Supplier Quality Representative (DSQR Certified)
SPOC 50 General Requirements (Applies to All Suppliers)
The Supplemental Purchase Order Conditions (SPOC) Manual QSP-7.4.2.2.1 contains quality and related process requirements that are applicable when identified on the face of Buyer’s POs.

The electronic version of the Manual can be acquired at WEBSITE: http://www.cobham.com/about-cobham/mission-systems/customer-service/service-and-support,-life-support-products/davenport/davenport-supplier.aspx. Suppliers may contact Buyer’s Authorized Representative to obtain the SPOC Manual or can visit the WEBSITE.

The SPOC Manual is effective starting August 5, 2015. The QRs stated on all Buyer POs released to Suppliers prior to August 5, 2015, remain valid until performance of the PO is complete.

Buyer’s Quality Organization is responsible for the content, updates, and configuration control of the SPOC Manual within Buyer’s Quality Management System (QMS). The Manual is divided into three sections:

1) SPOC 50 General Requirements
2) SPOCs 1 through 20 Group SPOCs
3) SPOCs 100 through 999 Provides Technical Details.

All Suppliers doing business with Buyer are required to conform to the applicable SPOCs.

The SPOC Manual and the SPOCs stated on a PO form part of the contract between Buyer and the Supplier in accordance with the PO Terms and Conditions SCREF-7.4.2.1 for Goods and Services or the Purchase Agreement for Goods and Services (as applicable, referred to as the Agreement). Capitalized terms under this in the SPOC Manual have the meanings ascribed to them in the Agreement.

50.1 Applicability
Applicable SPOCs are specified on the face of the PO by group as identified in SPOCs 1 through 20 and/or by specific SPOC number(s) and/or text. Conflicts among the documents constituting the Agreement are resolved with reference to Section 2.5 of the Agreement.

50.2 Subcontracting Requirements
Per Section 22 of the Agreement, flow downs by a Supplier to its lower-tier suppliers must include all applicable requirements of the PO, including without limitation engineering requirements, SPOCs, special processes, controlled sources, and other applicable requirements called out on the PO or identified in engineering drawings or other technical data. For Goods and Services being delivered under US Government contracts, flow downs include the applicable FAR, DFARS and other US Government agency clauses included in Schedule 1 to the Agreement.
50.3 Quality Requirements, Flow Down, and Communication

The core requirement for quality is for the Supplier to comply with 100% of Buyer’s requirements for Goods shipped and Services performed. If Supplier’s quality and delivery systems are not capable of meeting 100% of the PO requirements, Buyer expects Supplier to pursue measurable continuous improvement activities to its quality and delivery systems to ensure that Supplier meets 100% of the PO requirements.

50.3.1 Flow Downs

The following chart demonstrates the flow down of customer requirements to the Supplier and to the Supplier’s lower-tier suppliers.

50.3.2 Supplier Communication

Per Section 2.8 of the Agreement, Buyer’s Authorized Representative is the only individual with authority to bind Buyer contractually, whether as to terms and conditions SCREF-7.4.2.1, technical requirements, quality requirements or any other requirements.

The objective of collaborative communication between the Supplier and Buyer is to meet our common customer’s expectations effectively. Technical or other communications between Buyer’s and the Supplier’s functional organizations, such as the engineering and quality groups, are allowed to resolve issues and to provide clarification of the PO requirements. Examples of technical communications include working on a non-conformance/corrective action, drawing and specification clarifications, design for manufacturability, or error proofing strategies or processes. If discussions potentially change the technical or other requirements of a PO,
then the Supplier must contact Buyer’s Authorized Representative before proceeding with any change in accordance with Section 2.8 and Section 17 of the Agreement.

Handwritten, lined-out or initialed changes to purchase orders are not permitted. Handwritten, lined-out or initialed changes to engineering drawings/specification or technical data are not permitted except where: A) Provided for by Cobham site procedure, and B) Signed by Cobham Engineering. All Suppliers are required to comply with the Terms and Conditions and SPOC Manual requirements.

Verbal and/or email authorizations are NOT permitted.
50.4 Cobham Part Number Naming - Spares

Part or assembly numbers appearing on a purchase order with the prefix “SPAR-“ are the same as part numbers without the prefix. All assigned SPOCs and other flow downs associated with the part number following Spares-are exactly the same. The supplier is expected to execute the requirements presented in the flow downs. Example: Part Number STD13102-200 is a resistor and assigned SPOC 010. SPAR-STD13102 is the exact part number; a resistor with a SPOC 010 assignment. In this example, the supplier will provide STD13102. The SPAR-prefix is used to route the parts to support other point of use destinations other than production.

50.5 Right of Entry

Buyer and End Users may at any time visit Supplier’s premises or the premises of any of Supplier’s lower-tier suppliers upon reasonable advance written notice for any purpose related to performing the PO, including without limitation conducting quality assurance inspections and audits.

- During such inspections or audits, Buyer and End Users may:
  - inspect and test the Goods, the raw materials and components used to produce the Goods, the Tooling and Buyer’s Property and Supplier’s tooling and equipment used to produce the Goods, and the work being performed in the supply, manufacture or assembly of the Goods; and
  - review the quality assurance systems used by Supplier or any of its lower-tier suppliers.
- To the extent possible, Supplier will coordinate inspections or audits of its or its lower-tier suppliers’ premises and may accompany Buyer and End Users on such visits.
- Buyer reserves the right to inspect the Goods at Supplier’s facility (to perform source inspection) at any time on reasonable advance written notice. Supplier will provide reasonable cooperation and assistance and provide office accommodations, at its expense, to facilitate Buyer’s source inspection. Such source inspection may be attended by Buyer and End Users. Source inspection will not constitute acceptance of the Goods for purposes of triggering Buyer’s payment obligation. Acceptance of all Goods and Services will be made in accordance with Section 10 of the Agreement.

50.6 Changes Affecting Goods and Services

The Supplier must notify Buyer of any changes that affect the Goods and Services delivered. All such changes must be approved by Buyer’s Authorized Representative in advance and in writing.

50.6.1 Changes to Materials, Components or Source of Supply

If a material or component or a source of supply is specified on the PO or Buyer’s specifications, designs, drawings, and similar technical documents, Supplier will not use any unapproved: (i) materials or components; or (ii) source of supply, unless Buyer’s Authorized Representative has approved in writing such unapproved materials, components or source of supply. If Supplier uses any such unapproved materials, components or source of supply suppliers without Buyer’s prior written approval, Buyer will have the right to reject to Goods and return these to Supplier without any liability whatsoever to Buyer.

When Buyer’s specifications, designs, drawings, and similar technical documents specify a material, component or source of supply, the Supplier must provide written documentation (evidence) that it used the specified material, component or source of supply. When the Supplier signs the Certificate of Conformance (SPOC 100.1),
this signature certifies that all of the PO requirements have been met, including without limitation the use of specified materials, components, or sources of supply.

If the Supplier is performing a first article inspection (FAI) using a Buyer source-controlled drawing that specifies a material, component or calls source of supply, the Supplier must provide written documentation (evidence) that it used the specified material, component or source of supply at the same time it submits its FAI test report. This documentation may include without limitation a copy of the Supplier’s purchase order for the specified material or a certification from the specified source of supply provided to the Supplier.

When a material, component or source of supply is not specified on the engineering drawing or other technical data or is specified as “suggested,” the Supplier may use other sources of supply.

50.6.2 Changes to Name, Cage Code, Location, and Ownership or Control
Supplier will promptly notify Buyer’s Authorized Representative in writing of any change in the Supplier’s name, cage code, DUNS number, location of facilities or manufacturing equipment, or ownership or control of the Supplier or of any change in Supplier’s organization or method of doing business that will or may affect Supplier’s performance of any PO or this Agreement.

Without limiting this SPOC 50.6.2, the Supplier will provide advance written notice to Buyer’s Authorized Representative of the following:

A) Any change in location of facilities or manufacturing equipment prior to relocation and with adequate time (minimum 90 days) for re-qualification of the Supplier’s quality system, hardware and processes.

B) Changes in senior company management or in senior quality leadership.

C) Changes to its quality or manufacturing systems or controlled processes and its quality system certification, applicable, including suspensions or disapprovals.

A) Changes in the holder of design authority for the Goods or Services purchased from the Supplier or a change in the location of the design office.

B) Where the Supplier has design authority or provides parts under its configuration control, Buyer changes to fit, form or function or safety of product

Supplier’s notifications will contain the following information at a minimum:

• Supplier Cage Code and/or DUNS number
• Old data and new data (i.e., if an address change, list the prior address and the new address)
• Name, phone number and email address of Supplier quality contact
50.6.3 Major Changes
The Supplier will inform Buyer’s Authorized Representative before making any changes defined as a “Major Industrial Change,” a “Major MRP/ERP (Material Resource Planning)/(Enterprise Resource Planning Change),” or a “Major Supplier Change” (collectively, “Major Change”).

Major Industrial Change means a change in: (1) plant location (physical address) where Goods are manufactured or assembled; or (ii) processes used to manufacture the Goods.
Major MRP/ERP Change means any change in Supplier’s planning processes that may impact materials, processes, tooling, or transportation in the supply chain that pertains to the Goods.
Major Supplier Change means any change from Supplier’s lower-tier supplier(s) used to produce the Goods at the time the First Article Inspection (“FAI”) was performed on the Goods.

The Supplier will notify Buyer in writing as soon as it becomes aware of a possible Major Change and, in any event, prior to implementing such Major Change. Supplier’s notice must include at least the following information:

- Good(s) affected;
- Detailed description of the Major Change;
- Reason for the Major Change;
- Requested start date and implementation schedule for the Major Change; and
- Identification of risk(s) and proposed mitigation(s).

50.7 Language Requirements
All Quality Management System records, data or correspondence to Cobham Aerospace are required to be in the language of the Cobham facility placing the purchase order, or in the English language, as agreed on between the Supplier and the Cobham facility. The Supplier will maintain an English Language translation of its Quality Manual. Upon request, all Supplier data related to furnished product must be translated to English and made available. If the Supplier does not perform this service, translation fees will be debited to the Supplier.

50.8 Configuration Management, Technical Specifications, and Drawing Requirements
The Supplier will ensure that Goods delivered and Services performed meet the requirements of the then current configuration of all drawings, specifications, technical data and other requirements of the PO. It is the Supplier’s responsibility to have or obtain the latest revision of all requirements. Standards and specifications called out on drawing notes must be understood and performed as indicated. The Signed Certificate of Conformance provided with the supplier’s shipment is acknowledgement that conformance and compliance to the drawings are fully met. If help is needed to obtain required documentation then Contact your Buyer’s Authorized Representative.
50.9 Notification of Design and Manufacturing Changes

Suppliers with design authority or provide parts under your configuration control are required to notify Cobham promptly, in writing, of any changes of fit, form or function, or safety of product and obtain written approval prior to manufacture and delivery. Supplier will submit proposed changes to the Buyer’s Authorized Representative including but not limited to: process – material – design – software.

50.10 Source of Supply

When the source of supply is specified on a Cobham engineering drawing and/or technical data in any way, only those sources listed will be used. Use of any alternate sources must be approved by Cobham in writing and added to the Cobham released drawing before purchasing parts from the alternate source. Contact the Cobham Buyer’s Authorized Representative to obtain the latest revisions. When the source of supply is not specified on the drawing or specified as “suggested”, other sources may be used. Records pertaining to specified source control are to be kept by the Supplier for a period defined by Cobham’s terms and conditions SCREF-7.4.2.1 and made available to Cobham upon request. Quality identification requirements are highlights in SPOC 470.

50.10.1 Specified Source Documentation Requirements (not FAI)

When an engineering drawing calls out for a specific source to be used for a product or service, the Supplier must provide documentation (evidence) that the correct source was used. When the Supplier signs the Certificate of Conformance (see SPOC 100.1) this signature is stating that all of the requirements have been legally met including the use of specific source requirements called out by engineering drawings.

50.10.2 Specified Source Documentation Requirements (FAI)

When performing a first article and there is a Cobham source controlled drawing involved, documentation providing proof the specified Supplier was used is required. This documentation must be sent with the first article. The documentation from the source Supplier may be a copy of the source Suppliers PO, or certification from the source Supplier, etc.

50.10.3 Material, Component, or Supplier Specified on the PO

If a material or component or a lower-tier supplier are specified on the PO or on Buyer’s specifications, designs, drawings, and similar technical documents, Supplier will not use any unapproved: (i) materials or components; or (ii) lower-tier suppliers, unless Buyer’s Authorized Representative has approved in writing such unapproved
materials, components or lower-tier suppliers in advance. If Supplier uses any such unapproved materials, components or lower-tier suppliers without Buyer’s prior written approval, Buyer will have the right to reject to Goods and return these to Supplier without any liability whatsoever to Buyer.

50.10.4 Approved Supplier List (ASL)
Buyer maintains an approved supplier list (ASL) identifying suppliers authorized to provide Goods and Services. The Supplier’s lower-tier suppliers do not have to be on Buyer’s ASL; however, Suppliers are expected to control their lower-tier suppliers by an on-boarding process, to have an effective quality management and delivery system that meets the requirements of the PO, and to monitor their lower-tier suppliers’ systems and processes.

50.11 Quality Records
Quality Records are written verification that the Supplier’s methods, systems, and processes were performed according to their quality management system. Quality Records are defined in AS9100 Standard. The Supplier will retain quality and related Records per 50.11.7.

Examples of Quality Records

- Management review records
- Records of Education, training, skills and experience
- Records that the realization process and resulting product meet requirements
- Records related to the review of customer requirements
- Design and development inputs
- Design and development review records
- Design verification records
- Design validation records
- Design and development change review records
- Supplier evaluation records
- Validation arrangements for processes
- Product identification records including material certifications
- Records related to customer property
- Calibration and verification records
- Internal audit records
- Product conformity record (FAIs)
- Records of the nature of nonconformities and any subsequent action taken
- Results of Corrective Actions taken
- Results of Preventative actions taken
- Compliance records: Burn certifications, Flotation, Material, etc.
- Inspection and test data
- Radiographic film
50.11.1 Access to Records
Cobham reserves the right to access records at the direct Supplier/PO holder, or its sub-tier Suppliers that are involved in the manufacture of Cobham products. The Supplier will make the records available within 48 hours, or 2 business days, of the request for access.

50.11.2 Records Storage
Records must be stored in an area which meets all local Fire and Life Safety Codes that prevents loss, damage or deterioration. All data stored by electronic means will be secure with back-up procedures, and audited to verify the integrity of the data. This process is to be built into the site Disaster Recovery Plan.

50.11.3 Disposition of Records
The Supplier will contact the Cobham Buyer’s Authorized Representative for disposition instructions of Cobham records upon termination of business activity.

50.11.4 Corrections
Changes or corrections to Records, regardless of the media, will be made as follows: draw a single line through the old data, enter the correct data, date, and apply stamp or initials or signature of individual making the correction. No erasures, covering, or "white-out" is permitted on any documentation being sent to Buyer or any Buyer documentation.

50.11.5 Traceability
- This SPOC does not apply to Tooling and Buyer’s Property.
- Supplier will maintain Records tracing the Goods, including without limitation raw materials, piece parts, components, and sub-assemblies used to produce the Goods, to their original manufacturers, including the mill supplying raw material, by batch or lot and date code. Such Records include without limitation a COC from the original manufacturer of the raw materials, piece parts, components, or sub-assemblies.
- Supplier will:
  o require its lower-tier suppliers to provide a COC with each shipment of raw materials, piece parts, components, and sub-assemblies in the same form as required for Supplier’s shipments;
  o inspect all shipments of raw materials, piece parts, components, and sub-assemblies from its lower-tier suppliers, including without limitation the documentation accompanying such shipments, for conformity with the applicable requirements; and
  o maintain Records showing the method of inspecting the raw materials, piece parts, components, and sub-assemblies received by Supplier from its lower-tier suppliers.
- The Supplier will provide, upon request, a list of all raw materials, piece parts, components, and sub-assemblies used to produce the Goods.

This SPOC applies to distributors raw materials, piece parts, components, and sub-assemblies used to produce the Goods.

The Supplier’s traceability system must account for any and all components that require replacement past initial installation. Traceability must be maintained throughout the manufacturing process to shipment of the Goods to
Buyer. In addition to raw material, piece parts, component and sub-assembly traceability, the Supplier will, upon request, provide all necessary processing history for the Goods in question, including without limitation process name, date and time, location, and identification of the personnel performing all manufacturing functions. The Supplier will also maintain Records showing the method of inspecting the raw materials, piece parts, components, and sub-assemblies received by the Supplier from its lower-tier suppliers.

50.11.6 Traceability Variance
The Supplier will obtain prior written approval of Buyer’s Authorized Representative before using any raw materials, piece parts, components, and sub-assemblies to produce any Goods without full traceability. Supplier will reference Buyer’s approval on Supplier’s COC for any Goods without full traceability. Buyer’s approval for use of Goods without full traceability is conditioned on Supplier providing, at its sole cost, the following and any other information requested by Buyer: 1) validation from the original manufacturer that the date and batch codes on the COC are genuine; and 2) testing a representative sample of the raw materials, piece parts, components, and sub-assemblies to produce the Goods to verify conformance with the specifications or other requirements.

50.12 Prohibited Practices
The following acts or practices are prohibited unless the Supplier obtains the prior written approval of Buyer’s Authorized Representative.

a) Unauthorized Repair - Repairs (by welding, brazing, soldering, or the use of adhesives) of parts damaged or found faulty in the fabrication process; repairing holes in castings, forgings or other materials by plugging or.

b) Unauthorized Processing - Addition, revision, or deletion of thermal, chemical, or electro chemical processes in manufacturing when processes are subject to specification control by Buyer.

c) Improper Material Submittal - Submission of material having known defects/problems to Buyer without written notification and approval.

d) Improper Material Re-submittal - Resubmission of material to Buyer without the material being clearly identified as resubmitted material.

50.13 General Quality System Requirements & Quality Audits
Suppliers and their lower tiers supplies are responsible for maintaining a QMS that complies with applicable Buyer quality standards. The Supplier will, upon request, provide its certificate of registration from an organization accredited by a member of the national or international accreditation forum (IAF) to the industry standard listed below or successfully pass a compliance audit conducted by Buyer’s Quality organization or its designee. Supplier will immediately notify Buyer in writing if Supplier fails to comply with AS9100 or loses its AS9100 certification or any other required certification or accreditation (see a through h below).

The Supplier is subject to periodic quality inspections or audits whether by the IAF or Buyer. During such inspections or audits, Buyer and End Users may inspect and test the Goods, the raw materials and components used to produce the Goods, the Tooling and Buyer’s Property and Supplier’s tooling and equipment used to produce the Goods, and the work being performed in the supply, manufacture or assembly of the Goods. Additionally, Buyer and End Users may review the QMS used by Supplier or any of its lower-tier suppliers. The Supplier is responsible for all costs associated with QMS audits.
Buyer’s required quality systems are as follows:

a) **Manufacturing with Design Authority**: AS/EN/JISQ 9100; design must be included in scope of registration, and Suppliers may not exclude design portions of the Standard.

b) **Manufacturing without Design Authority / Special Processes**: AS/EN/JISQ 9100

c) **Repair and Overhaul**: National Aviation Authority (NAA) Certification (local and/or international regulatory agency) and/or AS9100 or AS9100

d) **Special Processors (non-manufacturing)**: AS9003 or satisfactory audit to NADCAP (AC7004)

e) **Materials Laboratories and NDT Laboratories**: ISO 17025, or AS9003, or satisfactory audit to NADCAP (AC7004)

f) **Distribution and Brokers**: AS/EN/JISQ 9120

g) **Calibration Laboratories**: ISO 17025

h) **Software Suppliers**: AS/EN/JISQ 9100 and AS9115

Alternate quality system standards which do not meet the above requirements must be approved by Buyer’s Authorized Representative.

**50.13.1 Evaluation of Lower-tier Suppliers**
All Suppliers will establish processes to effectively monitor and control the processes of the Supplier’s lower-tier suppliers, including without limitation performing periodic evaluations of such lower-tier suppliers. Failure to provide proof of such processes may result Buyer auditing the Supplier’s QMS at the Supplier’s expense.

**50.14 Obsolescence**
The Supplier will develop and implement a part obsolescence management process, including the following elements at a minimum:

a) Annual assessment of bills of material (BOMs) to identify any actual or potential obsolescence that might impact production or delivery of Goods.

b) Proactive identification and detection of part, material or manufacturing or test equipment obsolescence issues.

c) An action plan to resolve each obsolescence issue, including forecast analysis and product support decisions (i.e., life time buy, redesign or product sunset).

d) A life time buy inventory management plan to ensure long term ability to produce the Good.

e) Advanced written notification to the Buyer Buyer’s Authorized Representative of any potential interruption in the ability to meet Buyer forecasted demand due to an obsolescence issue.

Supplier’s written notice will include at least the following information:

- A description of the obsolete item;
- The reason for the obsolescence;
- The estimated date the item will no longer be available; and
- Any proposed alternatives.

Supplier will work diligently to minimize the cost and operational impact of any obsolescence, including without limitation the effects of interchangeability to Buyer and End Users. Upon notice of an obsolescence issue, Supplier will permit Buyer to make a last time buy of the affected Goods.
50.15 Cobham-Consigned Material
The Supplier will not return unused consigned material without written authorization from the Cobham Buyer’s Authorized Representative.

50.16 Nonconforming Consigned Material
If authorized for return, the material will be labeled “Return of Consigned Materials, Do Not Route to Stores” on the outside of the shipping container.

The Supplier will identify the part number, dash number and the reason for return on the packing slip.

50.17 Business Continuity Management
The Supplier will maintain robust business continuity management (BCM) processes, including without limitation disaster preparedness and recovery plans. The Supplier’s BCM plan will include contingencies in the event that key people, processes or technology becomes unavailable. This BCM plan will apply without limitation in case of natural disasters, labor disputes, lockouts, evictions, power or systems failures, hazardous spills, fire, floods, explosions, sabotage, riots, war or other civil disturbances, and voluntary or involuntary compliance with any laws, regulations, or requirements of any government authorities. The Supplier’s BCM Plan will also include actions to mitigate any disruptions in supply from its critical lower-tier suppliers. Buyer reserves the right to review the Supplier’s BCM plan at any time upon written request.

50.18 Crisis Management
The Supplier must notify Buyer’s Authorized Representative within twenty-four (24) hours if it experiences an incident, including without limitation those listed in SPOC 50.17, that may affect its ability to produce or make timely delivery of the Goods.

50.18.1 Lower-Tier Supplier Crisis Management
The Supplier must notify Buyer’s Authorized Representative within forty-eight (48) hours of receiving notification that any of its critical lower-tier suppliers have experienced an incident, including without limitation those listed in SPOC 50.17, that may impact the Supplier’s ability to produce the Goods or make timely delivery of the Goods.

50.18.2 Disaster Recovery
In the event of a supply interruption, the Supplier will cooperate as requested by Buyer until the delivery schedule is recovered. Nothing in this SPOC 50.18.2 relieves the Supplier of its obligation to make timely delivery of conforming Goods or Services or waives any of Buyer’s remedies in case of the Supplier’s failure to make timely delivery of conforming Goods.

50.19 Material substitutions
Material and part substitutions are only allowed with released Engineering (released drawings, substitution documents, etc.) or written engineering approval. Suppliers should reference ST1637803 for allowed substitutions. Contact your Buyer’s Authorized Representative when a substitution is required for cause that is not covered by Cobham engineering.
50.20 Purchased Raw Material Periodic Compliance Verification
Materials control ensures that raw materials conform to the applicable physical, chemical and other technical requirements, including without limitation shelf life, by establishing a re-testing or audit schedule for each raw material source. The re-testing schedule is based on objective evidence (usually OEM, regulatory, or specifications) which supports the frequency and degree of re-testing actually performed.

50.21 Specification Availability
Suppliers must contact the appropriate Cobham Buyer’s Authorized Representative or other appropriate approved contacts to receive the latest revision of Cobham’s specification documents. The latest revision of the Industry or Military specification will be the revision in effect, unless otherwise specified. It is the responsibility of the Suppliers to have and/or obtain the latest revision of these specifications.

50.22 Packaging
All Goods must be protected during manufacture, transport and storage to prevent damage, including without limitation any special packaging required for electrostatic discharge protection, moisture sensitive components, corrosion protection, special cleaning, or explosive or corrosive materials. For painted parts, regardless of size, painted parts must be protected at the piece part level to ensure there is no paint on paint contact between parts.

50.23 Packaging and Handling of Electrostatic Discharge Sensitive Parts
Goods that are electrostatic discharge sensitive are defined in MIL-STD-1686. The Supplier is responsible to identify the components that are static sensitive components by referring to the OEM’s specification sheet. Such Goods must be handled, stored, shipped, and marked in accordance with MIL-HDBK-263 at all times.

50.24 Packaging of Moisture Sensitive Parts
The Supplier will package moisture sensitive Goods per J-STD-033:
   a) Moisture Barrier Bag (MBB) with desiccant
   b) Humidity Indicator Card (HIC)
   c) ESR-001 Requirement

50.25 Restrictions for use of Mercury and or Mercury Containing Components
All Goods provided by Supplier will contain no metallic mercury and must be free from contamination by mercury. The Supplier will not use mercury, mercury components or mercury bearing instruments or equipment that cause contamination during the manufacture, process, service, assembly, or test of Goods.

50.26 Prohibited & Conflict Materials
Cobham prohibits certain materials during the manufacture, process, service, assembly, or test of Cobham product. The Supplier will not incorporate into any articles to be delivered under this purchase order, specialty metals not melted in the United States, its possessions, Puerto Rico, or a qualifying country. Specialty metals are defined in Defense Federal Acquisition Regulation Supplement (DFARS 252.225-7014 and its Alternate 1). Qualifying countries are listed in DFARS 252.225-7009. The certification form shown below, or the Supplier’s equivalent format may be used. The Supplier will provide the following:
1. Carleton Life Support Purchase Order _______________________________________

2. Description of Material _________________________________________________

3. Material Specifications _________________________________________________

4. Lot, heat or batch number _______________________________________________

5. Source of procurement _________________________________________________

6. Origin of material _____________________________________________________

7. Name & location of melting facility _______________________________________

8. Name & location of mill _________________________________________________

9. Mill certification and all other requirements as specified in the applicable raw material specification including chemical and physical analysis

   Supplier ______________________________________________________________

   Signature ____________________________________________________________

   Title _________________________________________________________________

   Date _________________________________________________________________

50.26.1 Conflict Materials
To support the compliance of Buyer’s customers with the Dodd-Frank Wall Street Reform and Consumer Protection Act (“Dodd-Frank Act”) and regulations adopted to implement the Dodd-Frank Act, Supplier will, from time to time, as requested by Buyer in writing, report on Supplier’s use of “conflict minerals” in the Goods purchased by Buyer from Supplier. Supplier will report such data in the form requested by Buyer. “Conflict Minerals” is defined by the Dodd-Frank Act and its implementing regulations.

50.27 Critical Safety Items
The Supplier and product will meet all requirements for Critical Safety Items as detailed in the applicable specification or drawings. When the Safety specification is designated as a controlled specification, the manufacturer is required to be approved for the associated specification code and listed on the Buyer Approved Processing Source List (APSL). Buyer Purchase Order holders are responsible for ensuring that they and their sub-tiers comply with this SPOC, including any Frozen Planning requirements.

50.28 Auditing of Critical Safety Item Controls.
The Supplier will conduct self-audits as specified in the controlling of specifications invoked by the design data. Results of these self-audits will be provided to Buyer as required by the PO or Contract or upon request.
50.28.1 Critical Safety Items Requirements
   a) Affected Engineering documentation that applies to drawings only.
   b) Execution of the order, Buyer approval required prior to execution of P.O.
   c) Buyer Approved Materials and Process Engineering.
   d) Inspection, 100% Initially then an approved sampling plan such as Acceptance Quality Limit, (AQL).
   e) Material Review Board, (MRB) is Not Allowed.

50.29 Airworthiness / Safety Critical
Procurement of Airworthiness / Product Safety Critical, or Flight Safety Critical items or materials: A copy of the quantitative data will be supplied with the material for each shipment or a FAA Form 8130-3 Airworthiness Approval Tag must be included with the shipment.

50.30 FAA Production Approval (8130-3; -9)
This is in addition to the certifications required in Table 2. Suppliers holding an FAA production approval will ship parts with 8130-3 tags reflecting newly manufactured certification. This requirement applies to both new shipments and parts that may have been rejected or returned by Buyer or from a Buyer customer location. Suppliers will contact Buyer’s Authorized Representatives if there are any questions in issuing new 8130-3 tags as Buyer OEM sites can only return parts to Suppliers requiring Part 21 type rework and have not been used in revenue flights. Prior to FAA Conformity Inspection Seller will submit goods to Buyer’s Quality Assurance Representative who will initiate and complete FAA Form 8130-9 “Statement of Conformity” upon acceptance of Sellers hardware.

50.31 Return of Scrap Materials or Parts
For the return of scrap materials and/or parts the Supplier must have written authorization from the Cobham Buyer’s Authorized Representative or designated legal agent prior to returning product back to Cobham. When required, the Supplier will segregate and return, at no cost to Cobham, all scrap material incurred in producing parts to the Cobham site initiating the Purchase Order. Government-owned material determined to be scrap should not be disposed of without obtaining prior written approval from the government representative.

50.32 Visual Inspection Requirement
Obvious blemishes (e.g., digs, pits, scratches, burrs, etc.) are not permitted. Parts should be packaged individually or in containers using dividers. Suppliers will ensure that their inspection practices include a thorough visual examination of Goods and will refer to site specific workmanship specifications where available.

50.33 NADCAP Special Processes, accreditation - Certified Processes
All Suppliers and their lower-tier suppliers must obtain NADCAP accreditation to execute the following controlled processes when NADCAP Certification requirements are identified on the PO or contract. NADCAP requirements will be specifically called out on a PO if a Supplier must be NADCAP certified to perform the special process. Otherwise a NADCAP certified Supplier is not required. Additionally, the notes on the PO will specify the specific process to augment flow out NADCAP requirements. In some cases, the contract number requiring NADCAP certified processes will also be noted on the PO. SPOC 240 will provide NADCAP reporting requirements. Contact
your buyer if there are questions concerning NADCAP for guidance. Some of the special processes typical to NADCAP compliance are below.

a) Non Destructive testing  
b) Chemical Processing  
c) Non-conventional Machining and Surface Enhancement Elastomers  
d) Material testing in accordance with a controlled Materials Testing specification  
e) Coatings & Composites  
f) Heat Treating (including Brazing)  
g) Welding (including Torch and Induction Brazing)  
h) Electronics / Wiring  
i) Elastomeric Seals and Sealants  
j) Fluids Distribution  

The Supplier or its lower-tier supplier is responsible for the cost of NADCAP accreditation.

50.34 Shipments Made to Pak Source  
The Supplier will attach a bar code label to the outside box when shipping material to location: Pak Source 600 Mill St. Rock Island, IL 61201. The label can have other information on it (does not have to stand alone). If multiple part numbers then list all of them. Existing labels are acceptable with information below included.

Sample Label
- This label to be used when shipping to:
  Pak Source
  600 Mill St. Rock Island, IL 61201
- To be visible from exterior of container.
- Does not need to be specific size, as long as it is legible.
- Bar code represents value only (no prefix/suffix)
50.35 Suppliers of Explosives & Ammo
Suppliers shipping explosives or ammunition to Buyer are required to supply Ammunition Data Cards per MIL-STD-1167 or equivalent and initiator/primer lot numbers per MIL-STD-1168 with each individual shipment. Specific drawing or material specification sheets must be used for testing the individual parts listed below. The results of the individual tests must be sent with each individual shipment to Buyer. Each shipment of Goods containing explosives or ammunition must comply with Electro Static Discharge (ESD) packaging requirements per SPOC 350.

<table>
<thead>
<tr>
<th>Drawing/Specification Number</th>
<th>Part Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC-114</td>
<td>Primer</td>
</tr>
<tr>
<td>CC-133</td>
<td>Booster</td>
</tr>
<tr>
<td>CC-175</td>
<td>Semiconductor Bridge (SCB) Initiator</td>
</tr>
<tr>
<td>851AS276</td>
<td>Initiator</td>
</tr>
</tbody>
</table>

For questions concerning testing or reporting requirements for Goods containing explosives or ammunition, contact the Buyer Buyer’s Authorized Representative.

50.36 Parts Requiring Oxygen Cleaning (Specified on Drawing)
The presence of any contaminant in certain components can result in injury or damage to the component or Good. Oxygen cleaning will be specified on the engineering drawing and the part must be cleaned and supplied in accordance with Buyer Specification ST1637806, Cleanliness Requirements for Oxygen Equipment, or the other cleaning specification called out on the engineering drawing. If the Supplier needs assistance with this requirement, contact Buyer’s Authorized Representative.

50.37 Calibration System
The Supplier will provide and maintain a calibration system in accordance with MIL-STD-45662, ISO 10012-1, and/or ANSI Z540-1. If the Supplier uses lower-tier suppliers for testing or calibration, the Supplier must be able to demonstrate technical competence to a laboratory standard such as ISO IEC 17025 and the lower-tier suppliers must provide a certification to the applicable requirements.

50.38 Submitting Documentation - Supplier Certification Channel
Read SPOC 100 for details on documentation requirements. SPOC 100 applies to all Suppliers.

Additionally, all Suppliers must SCAN and EMAIL required documentation, certifications and COC to cms.dav.Supplier.documentation@cobham.com with each shipment.

Buyer’s Receiving & Inspection department will use the documentation to check conformance at receipt and archive the Supplier’s documentation to meet Buyer’s record retention requirements.
The Supplier will include a subject line in the EMAIL formatted as follows. `<Part Number>` : `<PO Number>` : `<Supplier CODE Number>`. Note: place a space before and after the colons. <> : <> : <> No other information may be placed in the subject line.

Example: 309D019-1 : PO 161487 : 2956

50.39 Performance Monitor and Control - Supplier Score Cards

On an annual basis, Buyer defines the minimum performance expectation measured in conventional ways such as parts per million (PPM) and percent (%) conforming for quality and percent on time to promise date (OTTP) on a Supplier level, as well as on a part number level. When a Supplier does not meet these minimum performance levels, Buyer reserves the right to require the Supplier to engage in an aggressive improvement project led by the Supplier’s top management, with the participation of Buyer’s stakeholders. These projects will be focused on improving the Supplier’s business operating systems and quality management systems that will result in the sustainable achievement of Buyer’s minimum performance expectation.

As of January 2015, Buyer’s minimum performance expectation is:

A) Quality 98% PPM or higher based on a three and/or 12 month rolling average.
B) Delivery 96 % on-time to promise (OTTP) based on meeting promise dates.

Certain strategic Suppliers will receive a monthly scorecard. This score card will graphically show the Supplier’s monthly performance and the twelve (12) month rolling performance in three categories: Quality yield, on time delivery and DPM, along with an overall score that weighs the two categories (50% quality and 50% on-time delivery), and calculates the value.

This scorecard is an outcome of data gathered by Buyer. The data is acquired each month from Buyer’s TIP-QA (quality) and Buyer’s business system (OTD) and will be used by Buyer to demonstrate the Supplier’s quality yield and on time delivery performance. Data is validated by the Supplier’s development organization with assistance from quality assurance and supply chain organizations. This data is considered actionable by both Buyer and the Supplier and should be utilized for continuous improvement as well as future business opportunities.

50.39.1 Quality

The Supplier’s quality performance rating is its demonstrated performance with respect to the quality of the Goods or Services (percentage of supplied Goods or Services) which meet all requirements.

Example: Three pieces of nonconforming Goods out of 1500 pieces delivered = 99.98% first pass acceptance yield. Any one unit of measure (UOM) will be viewed as one piece, part, or container.

Negative trends or duplications in the Supplier’s reported non-conformance may also be given due attention and consideration as a reflection of the Supplier’s corrective action process viability. Best in class is 99.8% or 2000 DPM.

50.39.2 On-Time-Delivery
Supplier delivery performance (on-time to delivery (OTD)) is the Supplier demonstrated performance with respect to on time delivery. OTD is calculated as the number of pieces received on time versus the total number of pieces received in a reporting period. The OTD window is set to thirty (30) calendar days early to promise date. Earlier than 30 days to promise date is considered late. One day past promise date is considered late. Any Goods received outside of the OTD window will be counted as not on time. Best in class is 98% and an OTD of five days early to promise date.

50.39.3 Data Integrity and Appeal Process
Suppliers are encouraged to review their score cards every month. It is each Supplier’s responsibility to communicate any concerns it has about the score card Buyer. It is critical that the Supplier and Buyer are in agreement of the accuracy of the scores based on the performance criteria established in this document. If the Supplier disputes its score card, the Supplier must contact initial the dispute with Buyer’s Authorized Representative, who will use the process described in the below chart.
50.39.4 Score Card Example

**Quality**: 99.5% to 100% is Green, 95% to 99.49% is Yellow, <95% is Red

**OTD**: 96% to 100% is Green, 90% to 95.99 = Yellow, < 90% is Red

**DPM**: 5000 or Less is Green: > 5000 to 50000 is Yellow, >50000 is Red

**Best in Class Requirements**: OTD >= 98%, Quality >= 99.98%, DPM >=2000.

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50.40 Fixed Process Requirements

The Supplier will obtain prior written approval from Buyer’s Authorized Representative before manufacturing any parts under fixed process control. Any subsequent changes to the fixed process also require Buyers’ written approval prior to implementation. Fixed processes will be performed only by an approved ASL Supplier.
50.41 Quality Requirements - Buyer Partners with FAA Approved Production Certificates
If the PO identifies SPOC 50.41, the Goods are being furnished by a partner of Buyer holding a FAA Production Certificate, as specified by Federal Aviation Regulations (FAR) Sub-Part G, paragraph 21.132. Inspection and acceptance is delegated to the partnering Supplier in accordance with Federal Aviation Regulation (FAR) 21.146. Certification is required with each shipment stating that the articles supplied were produced in accordance with a quality management system approved by the FAA.

50.42 Control of Government / Customer or Cobham Owned Property at Suppliers
Government, customer or Cobham owned acquired/furnished property is:
   a) Tooling, test equipment and material supplied by Cobham for use in the performance of a specific purchase order.
   b) Tooling, test equipment and material made by the Supplier and paid for by Cobham in the performance of a purchase order. The Supplier is responsible for such property in accordance with the General Terms and Conditions clause of this Order and this Government/Customer or Cobham Owned property clause.
   c) The Supplier’s Quality Management System to control, use, preserve, protect, repair and maintain such property will be reviewed and approved by Cobham. Documentation should be submitted to the Buyer’s Authorized Representative for approval.

50.42.1 Control of Government / Customer or Cobham Owned Property
The Supplier will have a system, which includes written procedures for control of all tooling, test equipment and material. Procedures will be in accordance with the controls specified within the terms and conditions and this SPOC. Each individual piece of test equipment and tooling acquired under this order will be marked in a permanent manner with the appropriate identification number and ownership as provided by the Buyer’s Authorized Representative.

50.42.2 Records
The Supplier will maintain a record of all Government/customer and Cobham owned property. The list will include:
   a) Description and gage/tool name.
   b) Cobham identification number (applicable to equipment, tooling, test equipment, gages, etc.).
   c) Part Number (applicable to material).
   d) Cobham Purchase Order number, contract or equivalent code.
   e) Supplier name and address.
   f) Signature of the company’s approved representative.
   g) Date of certification.
   h) Program name (if supplied).
   i) Cobham Purchase Order site Supplier code.
When the property is transferred to another Supplier or returned to Cobham, the Supplier is required to maintain all records of the move for 5 years, or longer if specified in a contract with Cobham.

50.43 Physical Inventory
Supplier is required to maintain a physical inventory of all of the Government/customer or Cobham owned property acquired/furnished against this Purchase Order and furnish a listing when requested from a Cobham Buyer’s Authorized Representative or Representative.

50.44 Maintenance
The Supplier is to Maintain the calibration on all the gages and test equipment as required. Supplier is required to report immediately to the Buyer’s Authorized Representative any loss, theft or destruction of, or damage to, the Government/customer or Cobham owned property while in its possession. No modifications or changes to any of the test equipment or tooling are permitted without prior Cobham written approval. Contact the Cobham Buyer’s Authorized Representative before the transfer of test equipment, or tooling between Supplier facilities location to other sub-Suppliers. Report to Cobham any acquired/ furnished property that becomes excess to the needs of the purchase order.

50.45 Shipment to Cobham
Supplier should contact the applicable Cobham Buyer’s Authorized Representative to determine the correct address to return Cobham or Customer supplied property.

50.46 Characteristic Accountability
Suppliers must have a verifiable methodology for controlling and recording inspection of all design characteristics, as well as a method of validating received components from their lower-tier suppliers. The Supplier will maintain a detail inspection plan (DIP) for parts inspection ensure that all engineering drawing characteristics and notes are inspected and/or controlled by appropriate methods. A DIP may be used as a record or may reference supporting records such as routings, receiving or in-process inspection sheets, final test/inspection reports, or statistical data as long as the DIP and/or supporting records are complete, accurate and the results are reproducible. The DIP will define the manufacturing operation at which the characteristic is inspected and the inspection method used, including the type of tooling/gaging instrumentation used. The Supplier will maintain a plan which clearly documents the proposed control dimensions for all design characteristics. DIPs are not applicable to commercial items or commercial off-the-shelf (COTS) items as defined by the FAR.

50.47 Quality Sampling Key Characteristics
At a minimum, the Supplier will inspect all design characteristics per the aerospace sampling plan ANSI / ASQ Z1-4. C = 0. Suppliers will not institute alternate sampling plans without the prior written approval of Buyer’s Authorized Representative.

Inspection Sampling by Attributes
Sampling plans are derived from ANSI/ASQC Z1.4, but are modified to zero defects only for acceptance.

**Buyer will not pass lots with known defects.**
Minor Characteristics (SL1) are checked at a 2.5% AQL.
Major Characteristics (SL2) are checked at .65% AQL.
Tightened inspection (SL3) is a .4% AQL and Critical is 100% inspection.

50.48 Direct Shipments
Direct ship is an FAA-approved authorization to allow the transfer of product from a Cobham Aerospace manufacturing site that is not listed on the current Production Certificate, or an approved external manufacturing Supplier, to a non-military OEM customer acting on behalf of a Cobham Aerospace site that is listed on the Production Certificate.

50.49 Direct Shipment Authorization
Direct shipment from the Supplier to Buyer’s customer requires the prior written authorization of Buyer’s Authorized Representative. Send requests for direct shipping must be sent to Buyer’s Authorized Representative. A Letter of Authorization (DSA) is issued from the Cobham Quality Assurance Department authorizing the direct shipment for specific part numbers for a limited time period and/or limited quantity of parts to a specific end-item user.

50.50 Part Marking Requirements
Part marking requirements are specified on the drawing or specification flowed out from the drawing. The Supplier will comply with drawing requirements for part numbers, serialization and lot control marking. If part marking is not specified on the drawings, parts will be part marked per AS478-30 IAW MIL-STD-130 with Cobham’s Cage Code-P/N-Revision [ ], for example, “XXXXX-48-000-51887 Rev. C”. Supplier’s for build to print for Cobham are not allowed to their Cage Code on the part mark as they are not the OEM (Lot number or date code is acceptable). Per MIL-STD-130 Paragraph 4.1, if the part is too small to part mark you may bag and tag.

50.51 Certification to Federal Aviation Regulation - 14 C.F.R. 25.853
The regulation applies only to Goods supplied for use on commercial aircraft. All deliveries of production Goods that are non-metallic in structure or makeup, by way of illustration and not limitation plastics, foams, wire shielding and sheathing, and laminations that include non-metallic, fabric and fabric materials, must be accompanied by a COC stating that the Goods meet Burn Testing Requirements in accordance with Federal Aviation Regulation 14 C.F.R. 25.853A, B or C. If the Supplier is in doubt as to whether or not the Goods must be certified to meet this Federal Aviation Regulation, the Supplier will contact Buyer for clarification prior to delivery of the Goods. All metallic Goods, by way of illustration and not limitation castings, bar-stock, sheet metal, and machined aluminum, are excluded from this requirement. The requirement applies unless otherwise stated on the drawing or specification referenced on the PO.

50.52 Environment, Health and Safety
Supplier accepts full and sole responsibility to maintain an environment, health and safety management system (“EMS”) appropriate for its business. Buyer expects that the Supplier’s EMS promotes health and safety, environmental stewardship, and pollution prevention by appropriate strategies.

50.53 Registration, Evaluation Authorization and Restriction of Chemicals (REACH)
This SPOC 50.53 applies to any Goods delivered for use in the European Economic Area. Supplier will comply with European Union Regulation (EC) No. 190712006 (“REACH”). Supplier agrees to provide the information requested by Buyer for REACH compliance within forty-five (45) days after the date of Buyer’s notice, or such other time period as the parties may agree, in the format provided or requested by Buyer at no additional cost to Buyer.
Buyer may disclose such information to Buyers and End Users or the applicable regulatory authorities for purposes of REACH compliance.

50.54 Lot Control Information
All parts to be furnished on this order shall be identified with a serial number or lot number or date code and the manufacturer’s identification as applicable. The lot number shall be a unique number assigned to a group of identical parts that are produced concurrently by a common process. A date code consisting of a series of numbers that indicate day, week, month, or year of manufacture is an acceptable method of lot numbering. The manufacturer's identification can be his name, initials, registered trademark, symbol, logotype, or code identification number assigned in Cataloging Handbook H4-1. The supplier may use any lot numbering and manufacturer's identification scheme which meets the requirements of this document and/or MIL-STD-1285, latest issue. The lot number and manufacturer's identification shall be marked as required by the applicable drawing or specification. If the applicable drawing or specification has no requirements, the lot number or date code and manufacturer's identification shall be marked directly on the part, if practical. If not practical, it shall be marked on the accompanying paperwork or on the containers.

SERIAL # (If Applicable) _________________________
LOT # (If Applicable) ___________________________
DATE CODE (If Applicable) _______________________
MANUFACTURER’S IDENTIFICATION (If Applicable) _______________________

50.55 Specific Customer Flow Down and Information
All Suppliers must read and understand the requirements in SPOC 600 series. These are additional requirements or provide information on handling of parts specific to Buyer’s customers. As an example: SPOC 625.2 provides information on handling of Boeing Commercial Aircraft parts and SPOC 625.3 is a flow down Boeing wants all suppliers to know and comply with.
SPOC Groups – SPOC 001 through SPOC 020 Details

Group Requirements
In all cases, contents of SPOC Manual SPOC 50 (General Requirements) will be reviewed and complied with in conjunction with the purchase order flow down of specific Group SPOCs, and individual SPOCs noted on PO. All PO’s procuring parts will have a minimum of one group SPOC as (001 – 020). To use the Table 1 find the SPOC Group Number or numbers that matches the parts or products you are providing to Cobham. Then the corresponding individual SPOC numbers will be listed on the right. SPOC definitions are available below the table starting with SPOC 100 and ending with SPOC 9999.

UNSPSC Code Numbers for business system
The UNSPSC code numbers shown in table 1 are for internal Cobham business system commodity assignment only. The number is split into four sets of data as follows: Segment/Family/ Class/Commodity. {32121501}. All SPOC groups will have Segment # and Family # minimum. Class and Commodity # are optional. More than one segment number can be assigned to a SPOC group. The first four digits drive selection of Group SPOC Number.
## SPOC GROUP REQUIREMENTS

### Table 1

<table>
<thead>
<tr>
<th>SPOC Group Number: <strong>UNSPSC # {/WC}</strong></th>
<th>Individual SPOC’s Invoked by SPOC Group</th>
</tr>
</thead>
</table>
| **SPOC 001 Raw Metal Material:** Bar Stock, Plate Stock, Powder Metals, Metal Alloys, Aluminum Bar or Block or Sheet, Aluminum Extrusion, Solder Rings, Solder  
*UNSPSC: 11170000/WC - Alloys*  
*UNSPSC: 23271800/WC-Welding and Solder Suppliers* | 50 (all), 100, 110, 290, 370, 500, 520 |
| **SPOC 002 Machined Metal; Includes Required Special Processing (single part – if multiple parts then use SPOC 004):** Housings, Beds, Mounting Plates, Skid Plates, Pipes, Spacers, Tubes, Covers  
*UNSPSC: 31230000/WC – Machined Raw stock*  
*UNSPSC: 31120000/WC – Machined Extrusions* | 50 (all), 100, 110, 150, 140, 210, 240, 290, 370, 500, 520 |
| **SPOC 003 Metal Casting; Includes Required Special Processing:** Investment Casting, Forgings, Cast Assemblies, Cast with post Machine Operations, High Pressure Die Castings  
*UNSPSC: 31100000/WC – Castings*  
*UNSPSC: 31130000/WC – Forgings* | 50 (all), 100, 110, 140, 150, 160, 210, 240, 290, 370, 480, 500, 520 |
| **SPOC 004 All Metallic and Non-Metallic Assemblies and Sub-Assemblies; Includes Required Special Processing:** Welded or Brazed Tube Assemblies, Fabricated Tube Assemblies, Welded or Brazed Sheet Assemblies, Fabricated Plate Assemblies, Spin Formed Components, Stamped Components, Bonded Sheet Assemblies. Pumps, Valves, Pressure Valves, Motors, AC Motors, Fans and Blowers, DC Chargers, Generators, Kinetic Power Transmissions, Aircraft Accumulators, Aircraft Fuel Tanks and Systems, Fluid and Gas Regulators. Hydraulic Hose and Tube Fittings, Non Electric Motors, Riveted Plates, Strap or Harness Assemblies (Seat Belts or Cable Assemblies –i.e. Tri Ball), Bulkheads, Separator Membranes, Shipping Assemblies.  
*UNSPSC: 27124000 /WC – HYD. Hose & Tube Fittings*  
*UNSPSC: 31360000 /WC – Riveted Plates*  
*UNSPSC: 73180000/WC- General Assemblies, Includes All Process Services*  
*UNSPSC: 40150000 /WC – Pumps and compressors*  
*UNSPSC: 26100000 /WC – AC and DC Motors, Valves*  
*UNSPSC: 26110000 /WC – Generators/Kinetic*  
*UNSPSC: 40180000/WC-Tubing and Tube assemblies*  
*UNSPSC: 24110000/WC- Shipping Containers*  
*UNSPSC: 31300000/WC-Machined Forgings Assemblies*  
*UNSPSC: 31340000/WC - Fabricated Sheet Assemblies* | 50 (all), 100, 110, 140, 150, 170, 190, 210, 230, 240, 290, 330, 370, 380, 470, 500, 510, 520 |
**SPOC 005 Metal, Plastic, and Wood Components that are Off The Shelf:**

Bearings, Springs, Couplings, Standard/Retaining/Miscellaneous Hardware (Commercial and Military), Mounting Hardware, Spin Formed Components, Pipe & Pipe Fittings, Tubes & Tube Fittings, Air Fittings and Connectors, TEEs (Plastic or metal) Noise Control Housings or Enclosures, Cylinder Bottles, Flask, Plenum, Compress Air Tank, Cable Ties, Pallets.

| UNSPSC: 31170000/WC - Bearings | 50 (all), 100, 110, 130, 150, 290, 370, 500, 520, SPOC 625 (Boeing COTs Part Numbers). Not all SPOC 005 are COTs – Parts that are special design released on a Cobham drawing are typically not COTs. |
| UNSPSC: 31160000/WC – Springs, Couplings, Standard /Retaining/Miscellaneous Hardware, Mounting Hardware, COTS Parts, Pallets |
| UNSPSC: 31157000/WC - Pipe & Pipe Fittings |
| UNSPSC: 31140000/WC - Air Fittings and Connectors |
| UNSPSC: 31130000/WC - Noise Control Housings or Enclosures |

**SPOC 006 Raw Plastic Material and Plastic Parts (single part – if multiple parts then use SPOC 004):**


| UNSPSC: 31160000/WC – Injection Moldings |
| UNSPSC: 31110000/WC – Profile Extrusions |
| UNSPSC: 31107000/WC – Resins & Rosins |
| UNSPSC: 31127000/WC – Formed Components |

| UNSPSC: 31107000/WC – O-rings, Grommets (rubber and elastomers parts or material); Belts, Bladders |
| UNSPSC: 40160000/WC – Filtering and purification, separators |
| UNSPSC: 40160000/WC – Fluid and Gas distribution |
| UNSPSC: 13110000/WC – Foams, films, Packing |
| UNSPSC: 40160000/WC - Hoses |
| UNSPSC: 31410000/WC – Diaphragm Seals, Seals |
| UNSPSC: 31400000/WC-Gaskets |

**SPOC 007 Elastomeric:**

O-Rings, Preformed Packing, Separators, Foams, Hoses, Diaphragm Seals, Film, Belts, Bladder Assemblies, Neoprene, Delrin, Bumpers, Breathing Hoses, Rubber Sheets, Foam and Rubber Pads, Gaskets.

| UNSPSC: 13100000 /WC – O-rings, Grommets (rubber and elastomers parts or material); Belts, Bladders |
| UNSPSC: 40160000/WC – Filtering and purification, separators |
| UNSPSC: 40160000/WC – Fluid and Gas distribution |
| UNSPSC: 13110000/WC – Foams, films, Packing |
| UNSPSC: 40160000/WC - Hoses |
| UNSPSC: 31410000/WC – Diaphragm Seals, Seals |
| UNSPSC: 31400000/WC-Gaskets |

**SPOC 008: Metallic and Non-Metallic Identification Tags**

Nameplates, Decals, Plates, Information Plates, Port ID

| UNSPSC: 55120000/WC-Signage, Labels, Decals, and accessories |
| UNSPSC: 55100000/WC-Publishing Products |

**SPOC 009**

No Longer Used Now part of SPOC 004
**SPOC 010 Electrical, Electronic Components, Printed Wire Boards, & Rigid Printed Boards:**

UNSPSC: {32120000 /WC – Resistors, Caps, Inductors, Ferrite Bead, signal filters, Choke, Magnet, Solenoid), Electrical Terminal
UNSPSC: {32110000 /WC – Diodes, fuses, circuit breakers, Coils – Discrete Active Components, Amplifiers, Crystal, Devices, Switches, All other parts not listed in other UNSPSC codes
UNSPSC: {31150000 /WC – Mechanical Wire
UNSPSC: {39120000 /WC – Controls, Relays, Lugs, Plugs & Connectors, Sockets, Transducers, Indicators, transformers, Power Conditioning Equipment, lights, LEDs, sensors
UNSPSC: {43220000 /WC – Fixed Network..

**SPOC 011 Soft Goods:**
Nonwoven Fabrics, Specialty Fabric or Cloth, and Mesh Screens, Wire or Cloth Mesh, Silicone fiberglass, Velcro, felted Nomex, Polly Net Mesh, heat shrink, insulation sleeving, Tape, Leather, Polyester and Nylon Webbing, Thread, Nylon Thread, Kevlar Thread.

UNSPSC: {11160000/WC-Fabrics and materials

**SPOC 012 Electrical Assemblies & Deliverable Software/Firmware:**

UNSPSC: {43210000/WC – Computer Equipment, other Equipment
UNSPSC: {43220000/WC – Software
UNSPSC: {43230000/WC – Flight Instrumentation
UNSPSC: {43240000/WC – Control indicating and signaling devices
UNSPSC: {43250000/WC – Media Storage Devices
UNSPSC: {26120000 /WC – Wire electric cable, Wiring Harness, PCA’s, Heaters, Power Supplies

**SPOC 013 Calibrated Test Equipment & Tooling:**

UNSPSC: {41110000 /WC-Laboratory, scientific equipment, and fixtures

**SPOC 014 Chemicals (including COTs):**
Adhesives & Sealants, Grease, Lubricants, Oils, Anti

50 (all), 100, 110, 130, 140, 230, 290, 320, 340, 350, 370, 380, 440, 450, 460, 500, 520

50 (all), 100, 110, 150, 210, 290, 370, 500, 520

50 (all), 100, 110, 130, 140, 150, 190, 200, 230, 290, 320, 330, 340, 350, 370, 380, 440, 450, 460, 500, 510, 520

50 (all), 100, 110, 140, 190, 260, 290, 370, 500

50 (all), 100, 110, 130, 210, 290, 370, 490, 500, 520
<table>
<thead>
<tr>
<th>COTs Items do not require a C of C or chemical breakdown documentation unless specifically called out by the Cobham Drawing. Expiration dates when applicable to the product are required.</th>
</tr>
</thead>
</table>

### SPOC 015
No Longer Used Now part of SPOC 002, SPOC 003, & SPOC 004

### SPOC 016 Service Providers and Testing:
Repair, Overhaul, Warranty, Rework, Technical Reports (Certification Reports, Test Reports (EMI, Functional, In-Circuit, Product Performance Analysis (Qual Testing, Engineering Development / Prototype, DOE). Creation of technical manuals. Creation of Manuals, Instructions, CDs, DVDs, etc. containing technical data.

INSPSC: {40000000/WC - Laboratory and Measuring and Observing and Testing Equipment, Reports}
INSPSC: {41100000/WC-Laboratory and Scientific equipment}
INSPSC: {82110000/WC - Writing and Translations}

50 (all), 110, 140, 190, 210, 220, 260, 290, 370, 380, 440, 450, 500

### SPOC 017 Tooling Supplies:
Hand Tools, Metal Cutting Tools, Abrasives and Abrasive Media, Dolly, Transports, Drills, End Mills, Sponges, Tips, Repair Parts for Tools

UNSPSC: {27110000/WC – Hand Tools}
UNSPSC: {23240000/WC – Metal Cutting Tools}
UNSPSC: {31190000/WC – Abrasives and Abrasive Media}

50 (all), 290, 370, 500

### SPOC 018 Safety:
Personal Safety and Protection, Rubber Gloves, eye protection (safety glasses), Respiratory Protection, Disposable Clothing, Special Environmental Fixtures and Accessories.

UNSPSC: {46180000/WC – Personal Safety and Protection}
UNSPSC: {46180000/WC – Respiratory Protection}

50 (all), 100, 110, 130, 290, 370, 500

### SPOC 019 Specialty Products:

UNSPSC: {31370000 /WC – Ceramic Fiber Products}

50 (all), 100, 110, 140, 150, 290, 370, 500, 520

### SPOC 020 Explosives:

UNSPSC: {12130000/WC – Explosive Materials}

50 (all), 50.34, 100, 110, 150, 290, 370, 500, 520

### Notes:
1) For SPOC 50 use UNSPSC: {80160000/WC - Business administration services (sales, cost tracking, Labor cost, Expedite Cost, Engineering Cost, payment)}.
2) For SPOC 180 use UNSPSC: {59120000/WC - (Packing Tubes, Cases, Shipping Crates, and Envelopes)}
SPOC 100 – Certification of Conformance / Shipping Declaration Document / Packing Slip

The Supplier is responsible for maintaining and supplying accurate and legible certification documentation as objective evidence of meeting drawing, specification, technical data, or purchase order requirements. The Supplier will submit this particular certification of compliance with each shipment, signed by its Quality Manager or their authorized representative which states that the product or service supplied is in full conformance with all physical configuration and functional test specifications; that all raw materials used conform to applicable specifications; that any special processes employed on the product conform to applicable specifications; and that inspection and test records, physical and chemical analysis, and process control data is on file and available for examination. By furnishing this certification, Supplier represents that he is the manufacturer or duly authorized distributor, or agent for the manufacturer of the product.

100.1 Certification Requirements

A signed Certificate of Conformance (C of C) will be provided with each shipment (Exceptions: see Notes AA below table 2) of product confirming that all Cobham Design & Process requirements have been met. The C of C can be a separate document, or it can be included as part of the shipping declaration/packing slip text. Certifications must be from the original manufacture of the product, processor or the repair/overhaul facility. Requirements of what information is on and/or attached to a C of C are outlined in Table 2 – Group SPOCs 001 through 020. Table 2 lists what requirements are to be included and/or attached to the C of C data / information requirements for each group SPOC. The “P” under the individual SPOCs indicates that the documentation requirement applies to every lot shipped (Production and FAIs) and will be included on or attached to each C of C from the Supplier. A FAI under the SPOCs indicates that the requirement to attach certifications to the C of C applies only to First Articles; however, the Supplier is required to keep all certs and / or objective evidence on file for a period defined by Cobham’s terms and conditions SCREF-7.4.2.1 even if the requirement to attach the certs is waived. Supplier will have it available upon request. Below is an example of an acceptable C of C.

100.2 Certification Requirements for OSP Parts

Typically OSP parts are sent to suppliers for secondary operations. SPOC numbers will reflect the base part in most cases. The supplier performing the secondary operation is NOT required to re-generate certification and other documents for the base number. Cobham will have them. The supplier performing the OSP secondary operation is required to submit a signed C of C indicating the part complies and conforms to the PO and associated specifications.
## Certificate of Conformance (C of C)

**Customer:** Cobham Davenport  
**Customer PO No.:** P606916  
**Part No.:** 0564602  
**Part Name:** Hinge Assy, Pdl/Tbl  
**Job No.:** 003775-1-1C  
**Qty. Shipped:** 1,000  
**Packing Slip No.:** 7119  
**Revision:** C  
**Lot No.:** (SO:3838)  
**Shelf Life:** n/a

We hereby certify that the above described article is conform and compliant in every aspect to the contractual and technical requirements of the purchase order, engineering drawing(s), specifications, and standards referenced therein. Where required by the customer purchase order, all drawing(s) referenced therein, parts, materials and processes have been procured from specified source controlled suppliers, and are acceptable to our customers and government C.I.P. approved sources, as applicable.

If the above described article is for an aircraft application, it is flight worthy and acceptable for its intended installation, use, or operation per applicable FAR clauses.

### Application Specifications and/or Processes

<table>
<thead>
<tr>
<th>Raw Material</th>
<th>Finish</th>
<th>Heat Treat</th>
</tr>
</thead>
<tbody>
<tr>
<td>.061 (1.56 mm) 304 for 942760-1 6.6-6</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>.075 (2.0 mm) 204 for 818846-5</td>
<td>n/a</td>
<td>Other</td>
</tr>
<tr>
<td>.100 (2.55 mm) 304 for 942760-3</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>.129 202 for 818846-7</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Certified By:**

Signature: Zoraida Garcia  
Date: 08/26/03

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**Page 38**
Supplier is required to keep all certs and / or objective evidence on file for a period defined by Cobham’s terms and conditions SCREF-7.4.2.1 even if the requirement to attach the certs is waived.

Notes AA:
1) Off the Shelf Parts do not require a signed C of C with each shipment or FAI documentation.
2) Vendor Owned Drawings - Components / assemblies do not require a signed C of C; however, must have a valid packing slip matching the physical parts / assembly. Parts can be checked to Vendor Drawing.
3) If SPOC 170 is on the PO then all documentation is required to be sent in with each shipment.
### Certification Requirements / Certificate of Conformance (C of C)

Table 2 - Group SPOCS 011 through 020

<table>
<thead>
<tr>
<th>Requirements</th>
<th>SPOC 011</th>
<th>SPOC 012</th>
<th>SPOC 013</th>
<th>SPOC 014</th>
<th>SPOC 015</th>
<th>SPOC 016</th>
<th>SPOC 017</th>
<th>SPOC 018</th>
<th>SPOC 019</th>
<th>SPOC 020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier Name and Address</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Cobham P.O. or Customer P.O or Part Number sufficient to trace material to what we ordered.</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Material Certification from the Original Manufacturer (all traceable to OEM)</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Signed Certificate of Conformance (from supplier’s quality representatives)</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Test Reports/Functional Tests (when called out on the drawing) (SPOC 190)</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Material Age/Shelf Life (SPOC 210) or expiration date - can be on the label or supplied documents</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Chemicals and Gases. (When called out on drawing) (SPOC 490): Not Required for COTS</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Explosives Reporting (SPOC 500): When called out on drawing</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
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<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Source Control Qualified Product List (QPL); specified source: When called out on drawing.</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
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<td>FAI</td>
</tr>
<tr>
<td>Burn Certifications (FAR 14.XXXx). (when called out on drawing)</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
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<td>FAI</td>
</tr>
<tr>
<td>Heat Treat Certification (when called out on drawing)</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
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<td>FAI</td>
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<td>FAI</td>
</tr>
<tr>
<td>Finishing Treatment. (i.e. Passivate, plating, etc.) Certifications (when called out on drawing)</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
</tr>
<tr>
<td>First Article Inspection Reports (SPOC 150)</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
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<td>FAI</td>
</tr>
<tr>
<td>NADCAP Reporting. When required on purchase order to complete part then follow SPOC 240</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
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<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
</tr>
<tr>
<td>Durometer Reporting (SPOC 510): When called out on drawing or PO</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
</tr>
<tr>
<td>Gaging, Test Equipment, tooling, requiring periodic certification</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
<td>FAI</td>
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<td>FAI</td>
<td>FAI</td>
</tr>
</tbody>
</table>

Supplier is required to keep all certs and / or objective evidence on file for a period defined by Cobham’s terms and conditions SCREF-7.4.2.1 even if the requirement to attach the certs is waived.

**Notes AA:**

1) Off the Shelf Parts do not require a signed C of C with each shipment or FAI documentation.
2) Vendor Owned Drawings - Components / Assemblies do not require a signed C of C; however, must have a valid packing slip matching the physical parts / assembly. Parts can be checked to Vendor Drawing.
3) If SPOC 170 is on the PO then all documentation is required to be sent in with each shipment.
100.3 Cobham Certificate of Compliance Form
Cobham is driving to reduce variability when receiving C of Cs from suppliers and reduce the amount of paperwork required to be sent in with shipments. This variability contributes to waste and delays at receiving inspection. The following form OF-7.4.2.2.1.1 is a standard Cobham C of C that we desire our suppliers to use with each shipment. The form can be obtained by contacting your buyer or a member of the Quality Organization.

100.4 Buy Back of Parts
In reference to Table 2 – Certification Requirements: Parts that are returned from suppliers that were originally purchased by Cobham or components purchased by the supplier authorized through a Cobham PO do not require a C of C; however, must be checked to assure the parts returned match the label or trace documentation prior to returning to stock. Typically these parts originated from the OEM or authorized representative.

SPOC 110– Notification, Containment, and Corrective Action of Nonconforming Material
Material that departs from drawing, specification or maintenance requirements (nonconforming) will be identified, segregated and controlled to prevent unauthorized use or delivery to Cobham or other designated destinations. The Supplier will provide prompt notification to the Cobham Buyer’s Authorized Representative, and written notification on Supplier letterhead to both the Cobham Buyer’s Authorized Representative and site Supplier Quality Manager if a nonconforming product or process is identified after shipment to Cobham has taken place.

110.1 Material Review Authority: Material Review Board (MRB)
The Supplier will not exercise Material Review authority without written approval by Cobham’s Quality Organization. This applies to material that is Cobham designed and/or designs controlled to Cobham specifications or other OEM designed hardware. Action will not be taken on any nonconformance which could affect safety of personnel; adversely affect performance, durability, interchangeability or reliability; materially affect weight; or otherwise result in failure of the end article to perform its intended function (form, fit, and function). All doubtful cases will be submitted to Cobham Material Review Board by contacting the Buyer’s Authorized Representative. Cobham reserves the right to reject the decision of the Supplier Material Review Board (MRB).

110.2 Requests for Material Review Action / Deviation Waiver
The Supplier may request consideration for nonconforming material that cannot be reworked to fully conform to drawing or purchase order requirements. Request for Material Review Board (aka Deviation Waiver Request SPOC 500) will be submitted on the appropriate nonconforming material document (e.g., SPOC 500 – Request for Material Review Board (aka Deviation Waiver Request)) or equivalent as applicable to the Cobham site. Nonconforming articles will be retained by the Supplier until the completed, dispositioned and approved Material Review document is returned to the Supplier. The signed off Request for Material Review Board (aka Deviation Waiver Request) must accompany the parts with the certification package, or be sent electronically to cms.day.Supplier.documentation@cobham.com. Cobham reserves the right to subtract monies from the purchase
order or debit the Supplier, for Cobham incurred costs related to the Supplier responsible for the Request for Material Review Board (aka Deviation Waiver Request SPOC 500) actions.

110.3 Material Discovered Nonconforming after Shipment
The Supplier will notify within 24 hours Buyer’s Authorized Representative and V.P Quality when nonconforming product has been shipped. The notification will include part numbers, design activity CAGE code or CDA code, traceability (lot, serial, manufacturer numbers), ship dates, quantities, and a description of the nonconformance. This applies to any nonconformance that departs from drawing, specifications, aftermarket maintenance technical data or purchase order requirements. The Supplier will contact the Cobham Buyer’s Authorized Representative promptly **Time Frame** and send written notification to the Cobham Buyer’s Authorized Representative, and the Quality Assurance Management at the Cobham site.

110.4 Containment of Nonconforming Material
When a nonconformance is discovered, or the Supplier is notified of a discrepancy, the Supplier must take immediate action to determine if the condition exists on any other work-in-process, in Stores at the Supplier’s facility, or in prior shipments. Containment action must be taken and documented prior to the next shipment of the part number involved. Containment activities taken and/or planned will be communicated to the Cobham Aerospace site within 48 hours when formally requested through Quality Notification of discovery of a nonconforming shipment. The Supplier will not wait for the discrepant hardware to be returned to begin an investigation.

110.5 Corrective Action
The Supplier is responsible for prompt replies to Cobham requests for containment (Within 24 hours) and root cause corrective action (30 days to respond unless otherwise specified with a complete and detailed plan).

**SUPPLIER CORRECTIVE ACTION REQUEST PROCESS**

<table>
<thead>
<tr>
<th>Step 1:</th>
<th>When a nonconforming product, process or service is received by Cobham, a nonconformance report will be initiated.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2:</td>
<td>Once a nonconformance report is initiated it will be determined by the Quality Assurance Department if a Supplier Corrective Action Report is required.</td>
</tr>
<tr>
<td>Step 3:</td>
<td>If a SCAR is required it will be produced through the nonconformance and the Scar will be forwarded to the STAT Buyer who in turn will forward it to the supplier.</td>
</tr>
<tr>
<td>Step 4:</td>
<td>The STAT Buyer will inform the supplier they have 2 days to contain the nonconforming product and 30 days to respond to the SCAR.</td>
</tr>
<tr>
<td>Step 5:</td>
<td>The supplier will be responsible for completing the following parts, (sections) of form OSP 4.6.1.3-1 Part 2 Assignment Part 3 Root Cause Analysis and Action Plan Part 4 Action Taken Part 5 Closeout Part 6 Verification</td>
</tr>
<tr>
<td>Step 6:</td>
<td>Once Cobham has received the report back from the supplier it will be reviewed by the Quality Assurance Department and the supplier will be notified if it has been accepted or rejected.</td>
</tr>
</tbody>
</table>
110.6 Request for Reversals
Nonconformance’s identified as the Supplier’s Responsibility are documented on the Supplier Scorecard. If the Supplier’s investigation of the nonconformance concludes that the nonconformance should not be charged as the Supplier’s Responsibility, then a request to reverse the responsibility must be submitted by the Supplier within 30 days of score card notification. Any nonconformance listing on a Supplier’s Scorecard constitutes notification whether or not the part is returned. Requests for reversal submitted later than 90 days after nonconformance notification may not receive consideration from the Cobham site.

110.7 Return Purchase Orders for Replacement, Reworked or Repaired Parts
Any part being supplied to Cobham on a return purchase order must either fully comply with all applicable drawing requirements or have Cobham MRB written approval for any repairs. Under no circumstances are parts known to be used or overhauled to be sent as a replacement for an OEM part. For parts that cannot be reworked to full drawing compliance economically or where repair authorization will not be granted, parts are to be
scrapped at the Suppliers’ facility. Supplier will contact the Cobham Purchasing agent prior to scrapping the parts, Cobham reserves the right to witness the scrapping activity.

110.8 Failure Reporting
Cobham reserves the right to request failure analysis on nonconforming product submitted from the Supplier. Upon request, the Supplier will submit failure analysis, a short term customer escape prevention plan, and a permanent corrective action plan, focusing on the root cause of the discrepancy. Reports will be submitted within 30 calendar days of request unless otherwise specified. Cobham reserves the right to issue a Supplier Corrective Action Request (SCAR) in addition to an (NC) for system quality management failures.

110.9 Cost Recovery
The Supplier is responsible for all costs incurred by Cobham as a result of a Supplier responsible nonconformance.

SPOC 120 – Eye Examinations
Suppliers that are certified by Cobham as a Designated Supplier Quality Representatives (DSQR) Supplier (SPOC 9999), earning preferred Supplier status, must have their DSQRs pass an eye examination. The records of the eye examinations will be maintained by the Supplier, and made available upon request by Cobham.

DSQR certified Individuals who inspect material for final acceptance must have:
1) Color Vision Eye Examination every 36 months.
2) Near-Vision Eye Examination every 36 months.
3) Individual(s) must meet the minimum standards in one eye, corrected with or without glasses.

**Color Vision Tester**
Examples of acceptable testing methods include: Pseudochromatic plates, Dvorine, Ishihara, Richmond, Farnsworth lantern, Keystone Orthoscope, Titmus vision tester, Titmus II Vision Tester, Titmus 2 Vision Tester. There are standard definitions of what is a pass/fail on these tests that should be followed.

**Near-Vision Eye Examination**
Examples of acceptable testing methods include: Snellen 14/18 or better, 20/25 or better, Jaeger type 1, Ortho-Rated 8 or equivalent method.
A medical professional must perform the eye examinations (eye clinic, occupational health clinic, onsite health clinic or medical department).

**NDT Requirements**
Near-Vision Eye Examination requirements for persons performing Nital / Temper Etch will be Jaeger type 2 – 20/30 or equivalent. For Inspectors certified to the requirements of NAS410 (NDT) or Mil-STD-867 (Nital / Temper Etch), and for personnel performing visual inspection of welds, Suppliers may administer their own eye examinations per the standard.
SPOC 130 Commercial Off the Shelf Parts and Products (COTS)
Unless specifically called out on a purchase order, customer document, or engineering released drawing, components and parts designated as COTS do not require certifications or a signed C of C to be sent in at time of shipment, but certification for manufactured COTS must be made available upon request by Cobham. COTS items are typically commercially available products and are typically dock to stock. Examples are bolts, nuts, rivets, washers, spacers, cutting tools, non-specially designed tooling, paper products, software like Microsoft office, etc.

130.1 Parts and Products Requiring a Mil Standard
Parts or Products that are designated on a drawing with a Mil Spec or on a Qualified Products List (QPL) MUST have a certification stating the parts or products meet the specific requirement sent in with every shipment.

SPOC 140 Key Characteristics Management
Key Characteristics (KC) for a part, subassembly or system are selected geometrical, material properties, functional design, and/or cosmetic features which are measurable, whose variation control is necessary in meeting Customer requirements and enhancing Customer Satisfaction.

When drawings call out “key Characteristics per SP436125” then the supplier is to comply with requirements outlined in AS/EN/SJAC 9103. The AS 9103 is an Aerospace standard designed to drive improvement of manufacturing processes through effective management of key characteristic variation. The key characteristic focus is intended to improve confidence for specified part features whose variation has a significant influence on end product form, fit, function, and service life.

140.1 Drawing key Characteristic Notes
Drawings will have notes on them indicating the key characteristic level per Cobham SP436125.

- **Critical characteristic drawing note.** Critical characteristics shall be identified on the Engineering Drawing by a note symbol. The accompanying note shall read, "Critical Characteristic per SP436125."

- **Major characteristic drawing note.** Major characteristics shall be identified on the Engineering Drawing by a note symbol. The accompanying note shall read, "Major Characteristic per SP436125."

- **Minor characteristic drawing note.** If critical or major characteristics are not required on the Engineering Drawing, a note shall be added that reads, "Characteristics have been deemed Minor per SP436125."
• **Note symbols.** When more than one feature is attached to a leader line, the note symbol shall be located to the left or right of each feature, note, geometric characteristic, etc., which has been identified as major or critical. Note symbols for single features shall be located within the proximity of the feature.

• **Critical Safety Item (CSI).** Critical safety items shall be identified on the engineering drawing by symbol(s) per Y14.100. A critical characteristic note symbol shall be assigned to identify CSI status.

### 140.2 Examples of Measurable Key Characteristic
Characteristics shall be selected based upon the specific function of the part or subassembly. Determining factors shall be the product’s fit, performance, service life, and manufacturability. Critical and major characteristics shall be identified on the appropriate drawing. If Characteristics are not identified as critical or major, they shall be considered minor and shall not be identified on the drawing.

**Definitions of Characteristics**

**Critical Characteristic:** A characteristic which, through judgment and experience, indicates that if not maintained in accordance with drawing specifications, would cause an unsafe condition; or a characteristic which is essential to the function of the end product.

**Major Characteristic:** Any dimension, tolerance, finish, or material; any installation, assembly, manufacturing, or inspection process; or any other characteristic which, if not in conformance with drawing specifications, would affect fit, form, or function of the end item.

**Minor Characteristic:** These are characteristics other than critical or major which, if not maintained in accordance with drawing specifications, would not reduce the suitability of the product and would have no adverse effect on safety. Such characteristics may be important for correct assembly, but does not impact function.

**Mechanical parts.** The following list of potential critical or major characteristics is not intended to be all inclusive. Cobham shall consider dimensional, functional, process, and other features when selecting characteristics.

- Dimensional features:
- Bearing journal diameters
- Pilot diameters
- Press fit diameters in structural lugs
- Seal ride surfaces
- Valve seat diameters
- Functional features:
- Balance data/shaft concentricity
- Presence of lubrication holes not readily obvious
- Features affecting end item interchangeability
- Valve geometric tolerancing
- Processing features:
- Heat treat surface temper
- Surface treatments
- Surface finish
- Structural adhesive bonding
- Oxygen Cleanliness
- Deburring

**Electrical/electronic parts or systems.** The following list of potential critical or major characteristics is not intended to be all-inclusive. Cobham shall consider dimensional, functional, process, and other features when selecting characteristics.

- Relay or power contact device
- Operate and release time
- Contact transfer time
- Contact voltage drop at full load
- Coil pull-in voltage
- Electronic power supply
- Output voltage over load range
- Output voltage over range of input voltage
- Output voltage over control range
- Output waveform/ripple
- Input current waveform
- Efficiency
- Output of monitoring circuits
- Case grounding resistance

**Lamp/lighted panel**

- Output light intensity at specific power conditions
- Output light intensity over control range
- Output light chromaticity or spectral power density
- Output light spatial distribution
- Lighting contrast ratio and uniformity

**Amplifier**

- Transfer characteristics including gain and phase margins
- Bandwidth at specified signal amplitude
- Dynamic range
- Efficiency/power dissipation

**Circuit breaker or power controller**

- Time to trip at specified load currents
- Response to control inputs (mechanical or electrical)
- Output of status indications (if applicable)
- Off-state output indications (if applicable)
- Off-state output voltage (if applicable)
140.3 Key Characteristic Supplier Data Collection
Suppliers are required to establish and use a Statistical Process Control System to collect and monitor key characteristic performance data during the manufacturing process. Cobham will collect and assess key characteristic data by contacting the supplier. Transmission of specific key characteristic data is expected to be provided by the supplier within 72 hours.

SPOC 150 – First Article Inspection (FAI) Requirements
The Supplier holding the Cobham Purchase Order is responsible for assuring completion of the First Article Inspection Report (FAI) per AS9102 and this SPOC for all Cobham design characteristics generated by the Supplier or their sub-tiers. The FAI requirement applies to each bill of material or parts list item with a Cobham part number that is invoked in the product design, including lower level Cobham detailed drawings identified on top level assembly drawing(s), and each cavity or tool serial number for products whose dimensions are controlled by the tool. FAIs may be required on Customer or Supplier Drawings that are non-Cobham designs or CAGE codes if specified on the Purchase Order. **Cobham or Customer FAI approval does not relieve the Supplier of the responsibility and/or liability for full compliance with all contract requirements.** The following items are exempt from the requirements of this SPOC or Identify Cobham Site Specific Requirements:

a) Bar and sheet stock.
b) Unaltered material consigned by or purchased from Cobham Aerospace or its authorized distributors.
c) Cobham vendor item. While these drawings do not require a detailed FAI, they will be documented on form 1 of AS9102 for all assemblies and/or lower level FAIs where they form part of the top level assembly part number.
d) Discrepant hardware either returned to the manufacturing Supplier or sent to an alternate Supplier and dispositioned rework or repair.
e) Nonfunctional hardware (protective covers, shipping hardware, COTs, etc.), unless otherwise specified.
f) Unless otherwise specified, catalog and COTS parts do not require a FAI.

150.1 First Article Requirements
The Supplier will meet the requirements specified in AS 9102. **Table 3 First Article Inspection Report** below summarizes the FAI requirements and when an FAI is required. When the drawing calls out what Supplier to use then as part of the first article shipment the Supplier must send proof that the specified source Supplier was used. This proof must be shipped to Cobham with the first article inspection reports. **Example:** documentation from the source Supplier; copy of PO, Receipt from source Supplier, etc. Follow-on production after the completion of a successful FAI **does not need another FAI unless one of the conditions in table 3 is invoked.**
# First Article Inspection Report (Table 3)

<table>
<thead>
<tr>
<th>Occurrence</th>
<th>FAIR Type Required</th>
<th>Customer FAIR Review Required</th>
<th>Required Forms**</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Production Run, New Base Part Number, First Receipt from a Supplier</td>
<td>Full</td>
<td>Full</td>
<td>AS9102 Form 1, Form 2, Form 3</td>
<td>Partial on baseline number if all characteristics were conforming on previous FAIR*</td>
</tr>
<tr>
<td>Design/Program change that could affect the characteristics, Fit, Form or Function</td>
<td>Full</td>
<td>Full</td>
<td>AS9102 Form 1, Form 2, Form 3</td>
<td></td>
</tr>
<tr>
<td>Change in Process / Manufacturing: Source, Inspection Method, Tooling, Material, Supplier/Manufacturer Location</td>
<td>Full</td>
<td>Full</td>
<td>AS9102 Form 1, Form 2, Form 3</td>
<td></td>
</tr>
<tr>
<td>Changes that invalidate original results, Engineering, Manufacturing, Tooling, etc.</td>
<td>Full</td>
<td>Full</td>
<td>AS9102 Form 1, Form 2, Form 3</td>
<td>Depending on revision*</td>
</tr>
<tr>
<td>A Revision to a Print/Drawing</td>
<td>Partial</td>
<td>Partial</td>
<td>AS9102 Form 1, Form 2, Form 3</td>
<td>Partial depending on which items are affected*</td>
</tr>
<tr>
<td>Assemblies</td>
<td>Full</td>
<td>Full</td>
<td>AS9102 Form 1, Form 2, Form 3</td>
<td></td>
</tr>
<tr>
<td>Lapse in production for 2 or more years</td>
<td>Full</td>
<td>Full</td>
<td>AS9102 Form 1, Form 2, Form 3</td>
<td></td>
</tr>
<tr>
<td>Nonconformance/Corrective Action</td>
<td>Partial</td>
<td>Partial</td>
<td>AS9102 Form 1, Form 2, Form 3</td>
<td>CAR/FAIR on all affected characteristics on the next production run*</td>
</tr>
</tbody>
</table>

*Contact Cobham Supplier Quality Group.

** Bubble Print with all characteristics numbered and recorded on AS9102 Form 3 or equivalent required.

The following forms or their equivalent must be used when performing a First Article Inspection Report:
- AS9102B Form 1 - Part Number Accountability.
- AS1902B Form 3 - Characteristic Accountability, Verification and Compatibility Evaluation.

First Article Inspections IAW latest revision in effect of SAE AS9102 must be performed and conducted on a sample part representative of the first production run. This will apply to final assemblies, subassemblies and individual parts manufactured or assembled to a specific drawing. Results of the FAI must be completed, accepted/approved and signed by Supplier’s quality representative and Cobham’s Quality Department prior to production or shipment. If schedule compression is required then the FAI documentation can be sent to Cobham.
with the production run when approved by a Cobham buyer. Each FAI must include a “bubbled” drawing identifying the location of all characteristics referenced on Form 3.

150.2 Periodic/Repeat FAIs
Cobham reserves the right to exercise the requirement of additional and/or periodic/repeat FAI requirement on a part number basis to assure continued product conformity. Also, Cobham reserves the right to validate multiple production lots if needed to determine overall process capability. FAI requirements are outlined in Table 3.

150.3 Additional FAI Requirements
For United States-initiated Purchase Orders, when a first time FAI is being conducted by a Supplier located outside of the United States, the Supplier will notify the Cobham Buyer’s Authorized Representative to assure that proper notification is made to the FAA prior to FAI completion. The 1st tier Supplier holding the Cobham Purchase Order will have the responsibility of assuring hardware manufactured internally and/or procured from their Suppliers are maintained and are in compliance with the Two Year (2) lapse in production requirement in accordance with AS9102. Evidence of continued manufacturing may be requested by Cobham either at the 1st tier Purchase Order Holders facility or at their sub-tier Suppliers as applicable.

150.4 Approvals
When an FAI is required per Table 3, a Cobham Quality Engineer (or a Cobham-delegated authorized agent) is required to review FAIs prior to hardware release. A listing of Quality Engineer contacts will be made available to Suppliers to address questions associated with the FAI process or technical requirements.

150.5 Documentation and Records
Unless otherwise specified by the procuring site, a Cobham-stamped FAI approval form (AF 0113 or equivalent) will be retained by the Supplier with the FAI documentation. For FAIs that do not require customer review the Supplier-approved AS9102 forms will be retained. All documents used to support the review and approval of an FAI are considered part of the FAI package and will be retained by the Supplier per Quality Records defined in Section 1 (see Cobham Terms and Conditions for record retention requirements). Retention of FAI Records Exception: FAI records may not be discarded as long as active shipments of the respective product are being made with ties /accountability back to that specific FAI record. Cobham reserves the right to request the FAI package at any time. When requested, the Supplier will ensure that FAI documentation is provided within 48 hours for USA, Canada, Mexico or UK and 5 business days outside of USA, Canada, Mexico or UK. FAIs will be compliant with AS9102.

150.6 First Article Forms and Instructions
The Supplier may use the forms in the AS 9102 specification or they can use the attached forms below. Contact the Buyer’s Authorized Representative or the Quality Department to obtain the electronic version of FAI form numbers 1, 2, and 3. Cobham FAI procedure is QSP 7.5.1.1 Production Process Verification-First Article.
# FIRST ARTICLE INSPECTION REPORT

**FORM 1 - PART NUMBERS**

<p>| | | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>1. Part Number</td>
<td>2. Part Name</td>
<td>3. Serial Number</td>
<td>4. FAI/Number</td>
</tr>
<tr>
<td>Assembly FAI:</td>
<td>Base Line Part Number and Revision, If partial FAI give reason:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If above part number is a detail proceed to step 13, if it is an assembly or sub assembly list part numbers below:

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<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>15. Part Number</td>
<td>16. Part Name</td>
<td>17. Part Serial Number</td>
<td>18. FAI Number</td>
</tr>
<tr>
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</tr>
</tbody>
</table>

19. Signature:  
FAI Complete: __  FAI Not Complete: __  
21. Reviewed By:  
23. Cobham Approval:  
20. Date:  
22. Date:  
24. Date:
<table>
<thead>
<tr>
<th>SECTION</th>
<th>SECTION TITLE</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Part Number</td>
<td>Part Number of part, component, assembly or sub assembly the first article inspection reports being completed on.</td>
</tr>
<tr>
<td>2</td>
<td>Part Name</td>
<td>Name of part, component, assembly or sub assembly the first article inspection report is being completed on.</td>
</tr>
<tr>
<td>3</td>
<td>Serial Number</td>
<td>Identifier assigned to the part, component, assembly or sub assembly the first article inspection report is being completed on.</td>
</tr>
<tr>
<td>4</td>
<td>FAIR Number</td>
<td>Reference number that identifies the FAIR, this may be an internal number of the supplier.</td>
</tr>
<tr>
<td>5</td>
<td>Part Revision Level</td>
<td>Latest revision of the part the FAIR is being completed on. If there are no changes mark as &quot;No Change&quot;.</td>
</tr>
<tr>
<td>6</td>
<td>Drawing/Print Number</td>
<td>Drawing/Print that is associated with the part the FAIR is being performed on.</td>
</tr>
<tr>
<td>7</td>
<td>Drawing/Print Revision Level</td>
<td>Latest revision of the Drawing/Print the FAIR is being completed on. If there are no changes mark as &quot;No Change&quot;.</td>
</tr>
<tr>
<td>8</td>
<td>Additional Changes</td>
<td>Any changes on parts, drawings or prints, design, engineering or manufacturing changes, deviations or exclusions.</td>
</tr>
<tr>
<td>9</td>
<td>Manufacturing Process Reference</td>
<td>Reference Number providing traceability to the manufacturing record of the FAIR part, including but not limited to; router number, plan number, lot number, batch number, date code, or line number.</td>
</tr>
<tr>
<td>10</td>
<td>Suppliers Name</td>
<td>Name of the organization performing the FAIR.</td>
</tr>
<tr>
<td>11</td>
<td>Supplier Code</td>
<td>Supplier Number / Cage Code.</td>
</tr>
<tr>
<td>12</td>
<td>P.O. Number</td>
<td>Customer purchase order number.</td>
</tr>
<tr>
<td>13</td>
<td>Detail Part / Assembly part</td>
<td>Check appropriate section.</td>
</tr>
<tr>
<td>14</td>
<td>Full FAI / Partial FAI</td>
<td>Partial FAI - Requires the previous part number, revision level, and reason for current FAI, design and/or process changes, manufacturing location, etc.</td>
</tr>
<tr>
<td>15</td>
<td>Part Number</td>
<td>Part numbers included in the assembly required to complete the product identified in field 1, (if applicable)</td>
</tr>
<tr>
<td>16</td>
<td>Part Name</td>
<td>Name of part in the assembly, (if applicable)</td>
</tr>
<tr>
<td>17</td>
<td>Part Serial Number</td>
<td>Serial number of the part in the assembly, (if applicable)</td>
</tr>
<tr>
<td>18</td>
<td>FAIR Number</td>
<td>Report number of the parts and associated assemblies, (if applicable).</td>
</tr>
<tr>
<td>19</td>
<td>Signature</td>
<td>Signature of the person approving the FAIR.</td>
</tr>
<tr>
<td>20</td>
<td>Date</td>
<td>Date when field 19 was signed.</td>
</tr>
<tr>
<td>21</td>
<td>Reviewed By</td>
<td>Signature of person performing the review of the FAIR.</td>
</tr>
<tr>
<td>22</td>
<td>Date</td>
<td>Date when field 21 was signed.</td>
</tr>
<tr>
<td>23</td>
<td>Customer Approval</td>
<td>Signature of customer approving the FAIR.</td>
</tr>
<tr>
<td>24</td>
<td>Date</td>
<td>Date when field 23 was signed.</td>
</tr>
</tbody>
</table>
# FIRST ARTICLE INSPECTION REPORT

## FORM 2 - MATERIAL, PROCESSES AND TESTING

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Part Number:</td>
</tr>
<tr>
<td>2.</td>
<td>Part Name:</td>
</tr>
<tr>
<td>3.</td>
<td>Serial Number:</td>
</tr>
<tr>
<td>4.</td>
<td>Fair Number:</td>
</tr>
<tr>
<td>5.</td>
<td>Material/Process Name:</td>
</tr>
<tr>
<td>6.</td>
<td>Specification Number:</td>
</tr>
<tr>
<td>7.</td>
<td>Code:</td>
</tr>
<tr>
<td>8.</td>
<td>Supplier:</td>
</tr>
<tr>
<td>9.</td>
<td>Customer Approval Verification:</td>
</tr>
<tr>
<td>10.</td>
<td>Certificate of Conformance:</td>
</tr>
<tr>
<td>11.</td>
<td>Functional Test Procedure Number:</td>
</tr>
<tr>
<td>12.</td>
<td>Acceptance Report Number:</td>
</tr>
<tr>
<td>13.</td>
<td>Comments:</td>
</tr>
<tr>
<td>14.</td>
<td>Signature:</td>
</tr>
<tr>
<td>15.</td>
<td>Date:</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>SECTION</th>
<th>SECTION TITLE</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Part Number</td>
<td>Part Number of part, component, assembly or sub assembly the first article inspection report is being completed on.</td>
</tr>
<tr>
<td>2</td>
<td>Part Name</td>
<td>Name of part, component, assembly or sub assembly the first article inspection report is being completed on.</td>
</tr>
<tr>
<td>3</td>
<td>Serial Number</td>
<td>Identifier assigned to the part, component, assembly or sub assembly the first article inspection report is being completed on.</td>
</tr>
<tr>
<td>4</td>
<td>FAIR Number</td>
<td>Reference number that identifies the FAIR, this may be an internal number of the supplier.</td>
</tr>
<tr>
<td>5</td>
<td>Material or Process Name</td>
<td>Name of materials and/or special processes.</td>
</tr>
<tr>
<td>6</td>
<td>Specification Number</td>
<td>Material Specifications and form (sheet, bar, etc.) for all materials incorporated into the FAIR, (weld, braze filler, etc.). Special Process specifications including class if applicable and permitted substitutions. If standard catalog items, fasteners/COTS are modified hardware or COTS item must be listed.</td>
</tr>
<tr>
<td>7</td>
<td>Code</td>
<td>Any required code from the customer for material or process listing.</td>
</tr>
<tr>
<td>8</td>
<td>Supplier</td>
<td>Supplier name, address, and code performing the special processes or supplying material.</td>
</tr>
<tr>
<td>9</td>
<td>Customer Approval</td>
<td>Indicate the special process and/or material sources are approved by the customer, Yes approved, No approval is required but process source is not approved, N/A if customer approval is not required.</td>
</tr>
<tr>
<td>10</td>
<td>Certificate of Conformance Number</td>
<td>Certificate number for; special process completion, raw material test number, modified standard catalog item, traceability, etc.</td>
</tr>
<tr>
<td>11</td>
<td>Functional Test Procedure Number</td>
<td>Test procedure number identified as a design characteristic.</td>
</tr>
<tr>
<td>12</td>
<td>Acceptance Report Number</td>
<td>Functional test certification indicating that the test requirements have been met.</td>
</tr>
<tr>
<td>13</td>
<td>Comments</td>
<td>Provide any supporting comments on report as applicable.</td>
</tr>
<tr>
<td>14</td>
<td>Signature</td>
<td>Signature of the person approving the information on the form.</td>
</tr>
<tr>
<td>15</td>
<td>Date</td>
<td>Date when field 14 was signed.</td>
</tr>
</tbody>
</table>
# FIRST ARTICLE INSPECTION REPORT
## FORM 3 - CHARACTERISTICS, VERIFICATION AND EVALUATION

<table>
<thead>
<tr>
<th>1. Part Number</th>
<th>2. Part Name</th>
<th>3. Serial Number</th>
<th>4. Fair Number</th>
</tr>
</thead>
</table>

|--------------|--------------|-----------------------------|---------------|-----------|-----------|-------------|-------------------------------|

<table>
<thead>
<tr>
<th>12. Signature</th>
<th>13. Date</th>
</tr>
</thead>
</table>

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SPOC 160 Castings Tooling Control

Castings Tool Life Management Control will require inspections and refurbishment based upon the volume of “shots” indicated in table 4 below, (This is a guide, the Supplier may find they have to inspect these items more frequently). Additionally, frequency of FAI is based on the number of production pieces since the last approved FAI. The Supplier will assure that all table 4 conditions have been satisfied prior to usage of the Casting Tool. Frequencies are, at a minimum, tracked by the Supplier / Manufacturer and do not relieve the Supplier of the responsibility / liability to meet the drawing and/or authorized deviation. The Supplier is required to establish and maintain written procedures to assure compliance with these frequencies.

<table>
<thead>
<tr>
<th>SECTION</th>
<th>SECTION TITLE</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Part Number</td>
<td>Part Number of part, component, assembly or sub assembly the first article inspection report is being completed on.</td>
</tr>
<tr>
<td>2</td>
<td>Part Name</td>
<td>Name of part, component, assembly or sub assembly the first article inspection report is being completed on.</td>
</tr>
<tr>
<td>3</td>
<td>Serial Number</td>
<td>Identifier assigned to the part, component, assembly or sub assembly the first article inspection report is being completed on.</td>
</tr>
<tr>
<td>4</td>
<td>FAIR Number</td>
<td>Reference number that identifies the FAIR, this may be an internal number of the supplier.</td>
</tr>
<tr>
<td>5</td>
<td>Characteristic Number, (Char. No.)</td>
<td>Unique number assigned to each design characteristic.</td>
</tr>
<tr>
<td>6</td>
<td>Reference Location:</td>
<td>Location of design characteristic, drawing zone, page number, section, model location, specification callout.</td>
</tr>
<tr>
<td>7</td>
<td>Characteristic Designator</td>
<td>Key characteristic that could effect fit, form, function, performance, service life or producibility where variations need to be controlled.</td>
</tr>
<tr>
<td>8</td>
<td>Requirement</td>
<td>Nominal dimensions and tolerances, drawing notes, specification requirements.</td>
</tr>
<tr>
<td>9</td>
<td>Results</td>
<td>Actual measurements, (results) obtained from the design characteristics. Test results may require certifications.</td>
</tr>
<tr>
<td>10</td>
<td>Designed/Qualified Tooling</td>
<td>Gages used for obtaining result and their associated identifiers, (serial numbers and/or gage numbers).</td>
</tr>
<tr>
<td>11</td>
<td>Nonconformance Number</td>
<td>If a characteristic is found to be nonconforming, list the nonconformance document reference number.</td>
</tr>
<tr>
<td>12</td>
<td>Signature</td>
<td>Signature of the person approving the information on the form.</td>
</tr>
<tr>
<td>13</td>
<td>Date</td>
<td>Date when field 12 was signed.</td>
</tr>
<tr>
<td>14</td>
<td>Additional Data &amp; Comments</td>
<td>Any additional information concerning the FAIR.</td>
</tr>
</tbody>
</table>
### Table 4

<table>
<thead>
<tr>
<th>Check</th>
<th>Item Description</th>
<th>Suggested Frequency (Shots)</th>
<th>Check For Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visually Inspect Fixture Condition</td>
<td>Each Set Up Overall operation and appearance of tool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check First Parts - after Shot 1</td>
<td>Each Run Check part conforms to process key characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leader Pins:</td>
<td>10,000 bent, damaged, loose bolts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leader Pin Bushings:</td>
<td>10,000 damaged, missing, loose.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ejector Pins:</td>
<td>10,000 bent, damaged, loose nuts, correct setting per process sheet, excessive wear/roundness, aluminum buildup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ejector Sleeves:</td>
<td>10,000 damaged, worn, loose, correct setting, loose nuts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metal Cores:</td>
<td>50,000 bent, damaged, buildup, undersized/undercuts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parting Line Surface:</td>
<td>50,000 remove buildup, flash, nicks.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Casting Cavity Surface:</td>
<td>50,000 check for damage, cracks, chips, buildup, undercuts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mounts Plate Bolts:</td>
<td>50,000 checking tightness, missing bolts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pour Cups/Angle Plates:</td>
<td>50,000 flush with parting line, loose bolts, undercuts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ejector Plate:</td>
<td>50,000 free operation, loose carrier bolts, head of return pins flush with/below surface.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mount Rail:</td>
<td>50,000 loose bolts, missing bolts, damage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vents:</td>
<td>50,000 open, flush/depressed per process sheet, damage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Prints/Vents:</td>
<td>50,000 remove trash, buildup, check damage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform Complete Product FAI</td>
<td>50,000 Visually Checked Last Shot for Other Defects.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete Inspection and Tool Refurbishment</td>
<td>250,000 Break Down Tool, Repair / Replace / Refurbish</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SPOC 170 Certification Documentation Required**

If SPOC 170 is called out on the purchase order then all the certification documentation called out in SPOC 100 TABLE 2 (P and FAI) must be included with the each lot shipped.

**SPOC 180 Shipping Containers**

Wooden, Plastic Bags, Anti-static Bags, Pressure seal Polyethylene, Metal or Composite Shipping Containers, Pallets and Specific Product Containers received for shipment of product from Cobham must pass kind, count and condition when applicable.
SPOC 190 – Acceptance Test Procedure (ATP) Approval Requirements

Where required by Cobham Engineering Drawing or Procurement Specification, ATP, or Test Requirements Document, the Supplier will submit the test results and test characteristics with lot shipment. Cobham Engineering may, at their discretion, approve test documents and plans containing less information than required by this SPOC. In such cases, those documents will take precedence over the requirements of this SPOC. These documents must be signed by the approving Cobham Engineer.

190.1 Typical Test Process Attributes and Test Data Sheet Requirements

The scope of the test requirements will determine what information is needed with the shipment. If clarification is required then contact the Cobham Buyer’s Authorized Representative or Quality Engineer.

a) Supplier Acceptance Test Procedures (SATP)
b) Qualification Test Procedures (QTP)
c) Lot Acceptance Test Procedures (LATP)
d) Functional Test Procedures (FTP)

190.11 Test Data Sheets will be enclosed in a data sheet envelope and attached to each individual unit. Each ATP data sheet will include the following:

a) Supplier name and address.
b) Purchase Order Number.
c) Date of testing, start and completion.
d) Signature or stamp of individual performing the test.
e) Cobham assigned Supplier code (if applicable).
f) Test procedure specification document number, date, and revision letter.
g) Cobham assembly part number, including the dash number.
h) List actual quantitative test results, when applicable. Minimum and maximum test limits.
i) Test reports must be certified and signed by a member of the Supplier’s quality organization with his title being indicated.
j) In those cases where test reports from the Supplier’s outside testing laboratory are being furnished, the Supplier will co-sign. The co-signer must be a responsible member of the Supplier’s quality organization with his title being indicated.
k) Any variation from the requirements stated will require written approval from Cobham’s Quality Engineering Department.
l) Test Equipment used will be calibration controlled in accordance with MIL-STD-45662A, or ANSI/NCSL Z540-1-1994, or ISO 10012-1, whether used in the Supplier’s plant or at another source.
m) Any serial number of the unit tested, such that the result for each serial number is known.
n) The Supplier will maintain documentation that demonstrates the adequacy of the testing procedure. The documents will be stored at the Supplier facility for a period defined by Cobham’s terms and conditions SCREF-7.4.2.1.

190.2 Data Submittal for Supplier Developed Test Procedure

The Supplier will submit a copy of the proposed test procedure to the Cobham Buyer’s Authorized Representative, who will forward it to the appropriate Engineering or Quality group for review and approval. Test plans, data sheet format and contents are subject to Cobham approval prior to manufacture and shipment of
production parts. The document must be submitted 60 days prior to scheduled delivery of production or development articles. Shipments will not be made until this approval has been obtained. Objective evidence of Cobham approval will be maintained by the Supplier.

190.3 Change Control
Changes to a Cobham approved Test Procedures require re-approval prior to implementation, and the changes may not be incorporated until receipt of written approval from Cobham. Test procedures that have been approved with comments may be corrected at the next required revision. Note: Cobham approval of the Supplier Test Procedures does not relieve the Supplier of the responsibility for determining that the product complies with the requirements of the Purchase Order, engineering drawings, and applicable specifications.

The Supplier and sub-tiers will comply with the appropriate revision AS 9115, Aerospace Deliverable Software. Any software, including non-deliverable software, used to create or revise Deliverable Software will be categorized as Deliverable Software.

SPOC 210 – Control of Items with Limited Shelf-Life
This SPOC covers the certification and shipment requirements of items that require shelf life control of uncured compounds and storage life control of cured elastomers. The items include:

a) Uncured compounds (for example: paint, adhesives, curing agents, primers, varnishes, elastomeric molding compounds, pressure sensitive adhesives, Prepregs, sealants, inks etc.). Items such as tapes and labels which have pressure sensitive adhesive back are categorized under uncured compound.

b) Cured Elastomers (for example: O-rings, gaskets, plate seals, molded shapes etc.)

c) The Supplier will furnish with each shipment the compound number of the material from which the items were manufactured.

d) Compound information will be packaged with each shipment against the Purchase Order.

210.1 Definitions

**Shelf Life:** For uncured compounds - the maximum period of time that the uncured compounds may be stored under the manufacturer’s recommended storage condition and remain suitable for use.

**Storage Life:** For cured elastomers - the maximum period of time that the appropriate packaged cured elastomers may be stored under specific conditions, after which time it is regarded as unserviceable for the purposes for which it was originally manufactured. The time of manufacture is the time of cure for thermoset elastomers or the time of conversion into a finished product for thermoplastic elastomers.

210.2 System for Shelf Life and Storage Life Control
Unless otherwise specified, shelf life is to be as recommended in SAE AS1933, SAE ARP5316, or MIL-HDBK-695 as applicable. The Supplier will maintain a documented system for storing and controlling uncured compounds with limited shelf-life and age-sensitive cured elastomers. The system will include a method of identifying and controlling such items.
210.3 Cure Date Identification for Storage Life Controlled Elastomers
Elastomeric parts will be identified by marking the cure date on the part or container. Cure date information will be packaged with each lot shipped, indicating either the applicable quarter of year digit, letter "Q", and terminated with the last two digits of the applicable year (example: Items cured in June, 2014 would be cure-date marked "2Q14"), or the actual date of cure. When the Supplier is the manufacturer or distributor of the item on order, the maximum age of the item or items for assemblies will not exceed 24 months from cure date to date of receipt by Cobham Mission Systems.

210.4 Certification Requirements
When shipping shelf-life controlled compounds and storage-life controlled elastomers, the Supplier will include the following additional information on the Certification of Conformance:
   a) Date of manufacture for shelf-life controlled compounds
   b) Cure date (QQ/YY) for storage-life controlled elastomers
   c) Shelf-life expiration date (MMYY) for shelf-life controlled compounds or storage-life controlled elastomers
   d) Batch and or lot number as applicable
   e) Date of shipment
   f) Manufacturer’s name

210.5 Shelf Life of Uncured Compounds Shipped to Cobham
On the shipment date, the item must have 50% or greater shelf life remaining for distributors and 75% or greater shelf life for OEMs unless approved by the procuring site. Where no shelf life information is available consult the procuring Cobham site for direction. All lots must be segregated and identified to maintain batch and/or lot number and cure date.

210.6 Shelf Life of Cured Elastomers Shipped to Cobham
On the shipment date, unless otherwise specified or required by drawing or specification, elastomers which have a storage life control in accordance with ARP5316 for elastomer seals must have 50% or greater storage life remaining. Elastomeric hoses which have a storage life control in accordance with AS1933 must have 75% or greater storage life remaining. Where no storage life information is available consult the procuring Cobham site for direction. All separate lots and/or batches of shelf-life controlled elastomers will be segregated and identified to maintain lot and/or batch number and cure date.

210.7 Bearing Lubrication
Unless otherwise required by specification: Bearings that are lubricated for use will be shipped to Cobham less than 18 months from the lube application date. Bearings lubricated with preservative compounds will be inspected for corrosion prior to shipping if more than 5 years from the application date.

210.8 Shelf Life of Compounds Applied to Products
The Supplier will maintain a documented system for identification and control of limited shelf life compounds so compounds that have expired shelf life will not be used on product being produced for shipment to Cobham.
210.9 Limited Calendar life Material on Assembly
Mil-HDBK-695, SAE-AS1933, SAE-ARP5316 apply in general and as modified herein and/or by applicable
drawing/specification. The Supplier will physically mark each assembly with the cure date/shelf life of the oldest
elastomeric component installed in the assembly. Unless otherwise specified, when assemblies are received the
minimum remaining shelf life for the oldest elastomeric component and the entire assembly will be 32 quarters.
The assembly date will also be marked on the assembly. All markings must be legible.

SPOC 220 – Repair and Overhaul Maintenance Requirements
National Aviation Authority (NAA) Certification (local and/or international regulatory agency) and/or AS9100 or
AS9110 compliance are required for Suppliers and sub-tier Suppliers performing maintenance. AC7004 Aerospace
Quality System will be accepted in lieu of SAE AS9100 for Suppliers only conducting Special Process services
accredited by Nadcap. Additional regulatory approvals may be requested and reflected on the Purchase Order
(PO). AS9100 and/or AS9110 certification will be required for Cobham Aftermarket Suppliers that do not hold a
National Aviation Authority (local and/or international regulatory agency) Repair Station certificate. Suppliers
performing Special Processes / Services:
   a) Suppliers holding a National Aviation Authority (NAA) Repair Station Certificate must have the
      appropriate ratings listed on the NAA Air Agency certificate Operations Specifications.
   b) Suppliers that do not hold a National Aviation Authority (NAA) appropriate ratings will be identified on the
      Cobham Approved Supplier List (ASL).
   c) Suppliers that perform special process that do not hold regulatory or are not listed on the Cobham ASL
      will be assessed by the procuring site as defined in Cobham Aerospace Procedures. Suppliers performing
      Special Processing / Services on Military material will be assessed as defined by Cobham Procedures and
      approved by the procuring site.

220.1 Drug and Alcohol Testing Program
All safety sensitive functions (product maintenance and/or preventive maintenance) performed on Cobham
purchase orders will be accomplished by personnel covered by a FAA compliant Drug and Alcohol Testing
Program if performed within the United States and its Territories. This is pursuant to 14 CFR Part 120 Drug and
Alcohol Testing Program and 49 CFR Part 40 Procedures for Transportation Workplace Drug and Alcohol Testing
Programs affects maintenance (not manufacturing) carried out at certificated and non-certificated
subcontractors at any tier.

220.2 Use of DER Repairs or Installation of PMA Parts in Cobham Designed Parts
Usage of approved Designated Engineering Representative (DER) repairs on Cobham products:
Any approved DER repair held by the Supplier that is intended to be used in the repair, overhaul, or installation of
detail parts under a Cobham purchase order will be submitted for written approval by Cobham prior to use. The
use of non-Cobham approved Supplier FAA-PMA parts in repair or overhaul of products will be approved in
writing by Cobham prior to installation.

The FAA 8130-3 or equivalent form(s) will be filled out when DER repairs are required to be approved by Cobham
prior to shipment. Suppliers without National Aviation Authority for part ordered, the Supplier will also provide
Sub-tiers FAA 8130-3 or equivalent form, and C of C from Production.
220.3 Inspection Requirements

100% inspection of each dimension which is affected by the repair / fixed processes is required. The Supplier will furnish one (1) copy and maintain on file a completed Teardown and Findings Report (or equivalent) for functional components as requested by the purchase order.

220.4 Shipping Certification Requirements

FAA 8130-3 or equivalent forms are required when Supplier is NAA approved. If CAAC approved, then an AAC-038 is required with each shipment.

A Certificate of Conformance in accordance with SPOC 100 is required when the Supplier is not a holder of a National Aviation Authority approved Air Agency Certificate or products are used for military programs or data is not regulatory and/or OEM approved.

SPOC 230 Electronics & Wiring Commodities

Suppliers of Printed Boards (PB), Printed Board Assemblies (PBA) and Cables & Harnesses (C&H) will be audited and approved to the appropriate specification as outlined below. However, Suppliers will process and certify hardware to specification(s) contractually flowed down.

a) Rigid Printed Boards (PB) {a.k.a. PWB}: IPC-A-600 (latest) Class 3 and IPC-6011/6012 (latest)
b) Printed Board Assemblies (PBA) {a.k.a. CCA}: J-STD-001 (latest) Class 3
c) Flex / Rigid Flex PB: IPC-A-600 (latest) Class 3 & IPC-6011/6013 (latest)
d) Cables & Harnesses (C&H): IPC/WHMA-A-620 Class 3
e) Sub-tier Suppliers that perform specific sub-processes used in the manufacturing of these three commodities (PBs, PBAs, and C&H) will be managed and approved by the respective commodity Suppliers as part of their overall quality management system.

SPOC 240 Approved Sources for Controlled Processes (NADCAP)

Controlled process specification types are listed in 50.33. Suppliers and their Sub Suppliers requiring a special controlled process to complete a part or assembly using NADCAP approved sources. Cobham reserves the right to audit and approve these sub-tier Suppliers. The Supplier shall execute due diligent to check certification is current and has not expired. If uncertain then contact Cobham Quality Assurance and/or the Buyer’s Authorized Representative.

240.1 Nadcap Reporting

When a Nadcap certification is required the Supplier will provide the following information:

- a. Special Process
- b. Supplier Name
- c. Nadcap Certificate Number and Expiration Date
SPOC 250 – Government and Customer Directed Source Inspection
This SPOC applies to any quantities reflecting a U.S. Government Prime Contract Number noted on the Purchase Order. When Government Source Inspection is required, the inspection will be conducted at the Supplier’s facility unless otherwise specified on the Purchase Order. The Supplier will make available all necessary specifications, documents, facilities and assistance. U.S. Government material will not ship without evidence of Government Source Inspection approval unless the prime DCMA office provides alternate instructions in writing. This SPOC also applies to Cobham Customer Source inspection; however, Cobham customer’s quality representatives do not have the authority to approve quantities reflecting a U.S. Government Prime Contract Number noted on the Purchase Order unless granted by the U.S. Government Contract.

250.1 U.S. Government Notification Requirements
Upon receipt of the order containing quantities reflecting a U.S. Government Prime Contract Number, promptly notify the Government Source Inspection (GSI) Representative who normally services your facility and provide a copy of the order so that appropriate planning for Government Source Inspection can be accomplished. The GSI Representative will be notified no more than 7 workdays before completion of the order. If unsure of the DCMA Representative, contact the Cobham Buyer’s Authorized Representative immediately. GSI may request the Supplier to furnish all work instructions down to the lowest level(s), including all mandatory government inspection points, prior to the initiation of any work. You are required to have reasonably accessible to the Government Quality Assurance Representative all drawings, specifications, engineering data, technical instructions, and detailed inspection procedures used in fulfilling the requirements of the Cobham Purchase Order.

250.2 Cobham Customer Notification Requirements
Promptly notify the Customer Source Inspection Representative as directed on the Purchase Order or by the Buyer’s Authorized Representative. Careful attention should be given to planning source inspection to meet Purchase Order schedules. If unsure of the Customer Quality Assurance Representative notify the Cobham Buyer’s Authorized Representative immediately.

250.3 Evidence of Source Acceptance
Evidence of Source Inspection acceptance for a single shipment will be the authorized stamp or signature on the packing list. If Government Source Inspection / Defense Contract Management Agency is required then in addition to an authorized stamp, a letter of delegation (LOD) authority between DCMA offices is required, showing that the specific part number being shipped has been granted GSI delegation. The LOD authority must be linked to the part numbers and quantities that have been granted delegation. Where the total PO quantity is greater than the quantity pegged to the U.S. Government Prime Contract(s) Number, the LOD will be issued for the quantities associated with the Prime Contract(s) only. Material received at Cobham not indicating Government Representative inspection at source will be subject to rejection at Receiving Inspection.

SPOC 260 Design and Control of Special Tools and Gages
Tools and gages will follow the requirements of the drawing. Certification of gages, tooling, and test equipment must be performed by a Supplier using calibrated equipment traceable to the National Institute of Standards and
Technologies, (NIST) or equivalent. Records will be kept by the Supplier (identified on the PO) and the certified items must be labeled with the tool identification and the calibration expiration date.

**SPOC 270 Free, Libre and Open Source Software (FLOSS)**
SPOC 270 applies only to POs that require the use or delivery of software, including without limitation software residing on hardware. **FLOSS** means software licensed pursuant to the General Public License (“GPL”), Lesser/Library GPL (“LGPL”), the Affero GPL (“APL” or “Affero License”), the Apache license, the Berkeley Software Distribution (“BSD”) license, the MIT license, the Artistic license (i.e., “PERL”), the Mozilla Public License (“MPL”), or any variations of these licenses, and includes without limitation licenses referred to as “Free Software License,” “Open Source License,” “Public License,” or “GPL Compatible License.” **FLOSS** also means software that incorporates or embeds software in, or uses software in connection with, as part of, bundled with, or alongside any open source, publicly available, or “free” software, library or software documentation; software that is licensed under a FLOSS license; and software provided under a license that subjects the delivered software, in whole or in part, to any FLOSS license; requires the delivered software, in whole or in part, to be licensed for the purpose of making derivative works or be redistributable at no charge; or obligates Buyer to sell, loan, license, distribute, disclose, or otherwise make the delivered software or any Goods incorporating the delivered software, in whole or in part, available or accessible to any third party, whether in object code or source code forms.

Supplier will disclose to Buyer in writing any FLOSS that will be used or delivered in connection with a PO. Supplier will obtain the prior written approval of Buyer’s Authorized Representative before using or delivering any FLOSS in connection with performance of the PO. Buyer may in its sole discretion withhold its approval for Supplier to use FLOSS.

**SPOC 290 – Packaging and Package equipment Identification**

**290.1 Product Delivery**
The Supplier must ensure all items are packaged and preserved adequately to guarantee that the hardware is delivered to Cobham undamaged and free of corrosion. The exterior shipping container will be sufficiently strong and functional to ensure safe product delivery and the identification must be maintained for subsequent distribution once received. Packages must withstand superimposed stacking loads, both as presented to the carrier and as may be expected during shipment. Unless otherwise specified, all hardware will be packaged and preserved in accordance with the drawing, applicable specifications, or purchase order requirements. If there is no drawing or specification requirement, hardware will be packaged and identified in accordance with Aerospace Industry Standards (ATA Spec 300, ASTM-D-3951-98 and MIL-TD-2073).

**290.2 Weight Limitations**
Hand-handled containers, including bundles are not to exceed 50 pounds (22.7 KG) gross weight. Containers in excess of 50 pounds will be put on skids or pallets to permit mechanical handling. Containers handled by hand may be skidded or palletized to consolidate a shipment, but individual containers must be properly identified, stacked, and secured to the pallet. Shipping skids/pallets or boxes will not exceed 2,500 pounds (1,136 KG) gross weight, and have appropriately placed slots or openings compatible to mechanical handling equipment, pallet jacks or fork trucks.
290.3 Prohibited Packaging

a) Newspaper wadding, loose-fill dunnage, macerated (shredded) paper, peanut foam, eco-foam, shredded materials, discarded paper, and broken or recycled foam-in-place are not acceptable as packing (dunnage) materials in any container.

b) Bags made from bubble wrap or grocery paper sacks will not be used as unit packs.

c) Wood containers constructed from OSB wafer board, particle board, very thin plywood or any other manufactured wood product which is fragile and will not tolerate handling, stacking and re-closing throughout the entire transportation system and subsequent supply chain handling and forwarding.

d) Used containers or boxes unless specifically designed to be reusable and are in adequate shape.

e) Parts that have contact preservation (oil), or have residual fluids or operating oils, will not be packed/wrapped in paper bags, bubble wrap, sheet foam, or Kraft paper.

f) Skin packs that have film-to-film attachments under the item, making part removal difficult, or subjecting the item to damage during opening. Multi-compartment skins packs or blister packs unless they can be positively re-closed after opening, and provide continued part protection.

g) Any type of container closure, or lack of a closure, which will result in safety issues, damaged parts or unserviceable packaging when opened.

h) Any packaging material which may cause Foreign Object Debris/Damage (FOD) or part contamination, part obstruction or leave non-preservation residue.

290.4 Inappropriate Closures

Staples are prohibited as a means of closure for exterior shipping containers. Staples are permitted in nonclosure portions of box type containers, such as bottom closure, side stitching, etc. The portion of the container meant to be opened must remain staple-free. Staples and other penetrating forms of unit package closure also are prohibited for use on bags (polyethylene or paper), bubble wrap, sheet foam, Kraft paper or other intermediate or interior containers. These types of unit packages must be heat sealed (if applicable) or sealed by folding, taping, Zip-Lock, or zipper sealing, etc.

290.5 Fluid-Soaked Packages

Fluid tight packaging will be as required by hazardous material / dangerous goods regulations and as follows:

a) Bagged and the heat-sealed closed in accordance with MIL-DTL-117. The bags will be made from MIL-PRF-22191, Type I material also known as “bearing bag” material. This method is required for corrodible parts which have contact preservative.

b) For non-corrodible items, residual fluids may be contained by bagging and sealing in heavy duty (6mil or thicker) zip lock type polyethylene bag.

c) If the item has internal fluids which may be released during transportation, the first bag will be surrounded by appropriate absorbent packing and enclosed in a second fluid tight bag or package.

290.6 Hazardous Materials and Dangerous Goods

The Supplier will define, mark, label and prepare for hazardous goods, dangerous material and/or dangerous equipment for shipment in accordance with Department of Transportation HM181, CFR Title 49, “Dangerous Goods”, as classified by IATA, IMDG or ICAO. Due to regulation requirements and potential liability issues, Cobham will report violations of hazardous materials & dangerous goods regulations to the appropriate governmental agencies.
290.7 Shipping Documents / Packing Slip
The Packing List is required to be attached to the exterior of container #1 in a weather-proof envelope marked “Packing List Enclosed”. If there are multiple boxes in a shipment then each box must have a packing list or copy of the packing list attached on Box 1. Other shipping documents; including the C of C, and/or Specific additive customer requirements will be specified via PO and linked to receiving inspection line items. These items may be attached to the exterior of the #1 container or can be placed inside of box 1. Identification, certifications, and traceability sheets, if provided, will be placed inside the container or inside Box 1 of a multiple container shipment. All subsequent containers/packages must be mark and numbered appropriately. I.E. box 1 of 4; 2 of 4; 3 of 4; 4 of 4.

290.8 Airworthiness Certification, Labeling and Consolidation Box Marking
When the PO requires a FAA 8130-3 airworthiness certification or equivalent form (Form 1), the certification form(s) and container identification will have a bright yellow airworthiness label with bold black printing, similar to that shown in Figure 4, permanently attached to the shipping container.

![Figure 4 Airworthiness Label for Exterior Container](image)

290.9 Country of Origin and Marking (includes U.S.A.)
Country of origin marking is mandatory to comply with Customs Regulations and/or Cobham requirements. Packaging of articles must be legibly, conspicuously and permanently marked with the parts’ country of origin. For a product to be called Made in USA, or claimed to be of US origin without qualifications or limits on the claim, the product must be “all or virtually all” made in the U.S. The term “United States,” as referred to in the Enforcement Policy Statement includes the 50 states, the District of Columbia, the U.S. territories and possessions. “All or virtually all” means that all significant parts and processing that go into the product must be of U.S. origin. That is, the product should contain no - or negligible – foreign content. U.S. Suppliers should contact the Federal Trade Commission, Division of enforcement, since the phrase “made in U.S.A.” is under their jurisdiction. This site [http://www.ftc.gov/bcp/conline/pubs/buspubs/madeusa.htm](http://www.ftc.gov/bcp/conline/pubs/buspubs/madeusa.htm) provides guidance. For the purpose of this SPOC, the designation “U.S.A.” is not adequate country of origin marking. It is the Supplier’s responsibility to ensure that marking on the product reflects the true country of origin of the product and that no illegal transshipment through a third country has occurred. The Supplier must also ascertain that foreign Suppliers are familiar with the country of origin rules.
290.10  Electro-Static Discharge (ESD) Labeling and Packaging
Packaging and labeling for ESD product should comply with Cobham ST1637819; reference Mil-Std-1686 or ANSI/ESD S20. Components are to be handled, stored, shipped, and marked in accordance with MIL-HDBK-263 at all times.

290.11 Packing and Shipping Instructions

Traffic/Shipping Dept. Phone: 563-383-6441

290.11.1 Deviations
Any deviation or exception to these packing or shipping instructions must be approved by Cobham’s Procurement Dept. in writing (email) and coordinated with Cobham’s Traffic/Shipping Dept. PRIOR TO SHIPMENT.

C.O.D. shipments will be REFUSED. No pre-pay and add of shipping costs is permitted.

290.11.2 Packaging Instructions

- All Goods must be packed to prevent damage during shipment using materials and methods compliant with ASTM D3951 (Standard Practice for Commercial Packing) and SPOC 290. AS stated in SPOC 290.3 DO NOT USE the following cushioning materials: packing “peanuts”, popcorn, or shredded paper.

- Check the PO, Purchase Order Terms and Conditions of Purchase for Goods and Services, and applicable US Government Additional Terms/Flow Downs for additional or alternative packaging instructions, if any.

290.11.3 Shipping Instructions
Follow the shipping instructions on PO; most shipments are routed via Ground Service. The Cobham Purchase Order number must appear on the carrier waybill, in reference section 1, or on the Less than Truckload (LTL) Bill of Lading. Any expedited shipments sent overnight or next day, second day service, or other expedited method must be authorized by Cobham’s Procurement Dept. in writing (email) PRIOR TO SHIPMENT.

290.11.4 Weight

- **1 to 150 lbs.** Ship via UPS or FedEx per PO instructions. Do not declare a value or insure the shipment, unless instructed by Cobham’s Procurement Dept. in writing (email).

- **151 to 10,000 lbs.** Ship via LTL motor freight. Shipments must be routed FREIGHT COLLECT via a carrier specified by Tech Transport, Cobham’s transportation broker, or by Cobham’s Traffic/Shipping Dept.

Contact Tech Transport at 800-641-5300, ext. 503, for logistics or at http://www.techtransport.com. For regular ground service, use the attached Tech Transport instructions to identify the state where the shipment originates for best rate for the lane.

For expedited shipments, contact Cobham’s Traffic/Shipping Dept. for specific instructions.
**Full truckload, flatbed, or over 10,000 lbs.** Contact Cobham’s Traffic/Shipping Dept. for specific routing instructions.

**SPOC 300 Freight to be Paid by Cobham**

The Supplier will assess all freight charges for which Cobham is responsible when the freight is tendered to the carrier. Cobham participates in discount programs with national carriers; but discounts accrue only when Cobham is the payer of the original bill. The Supplier that holds the Cobham Purchase Order will be charged with any lost discounts.

**SPOC 310 Cobham Source Inspections: Verification of Hardware**

Source Inspection of product by Cobham or its customer at Supplier’s facility is required for material furnished on this order prior to shipment. The Supplier will contact the Buyer’s Authorized Representative or other designee as directed by the purchase order 7 manufacturing days in advance of all required inspections. Suppliers do not have the authority to perform product release for this purchase order until the source inspection is completed. The Supplier will make available to the Buyer’s Authorized Representative's Quality Representative any necessary specifications, documents, facilities and assistance. Evidence of Buyer’s Authorized Representative's Quality Representative's acceptance/certification will accompany shipment. Support Systems Inc's QA Representative approval at the source will be subject to rejection at Cobham Receiving Inspection, unless waived by Cobham’s Quality Assurance in writing. Forms OSP4.6.2.2.1 and OSP4.6.2.2.2 will be used as required. Final acceptance will be at Cobham.

**SPOC 320 – Cobham Printed Wiring Boards (PWB)**

Certificate of Conformance will specify serial number(s) of supplied PWB's. 100% electrical net list testing will be conducted after solder mask. The Supplier will perform continuity and circuit short testing on all double-sided and multi-layer Printed Circuit Boards (PCBs) before shipping to Cobham. If the board has a bonded heat sink, 100% verification that the heat sink is not shorted to board is required. The number and location of test coupons will be in accordance with the Cobham specification. Each coupon or test strip will be suitably marked to retain traceability. Thermally stressed X and Y coupons will be analyzed by the Supplier to determine acceptability of the product prior to shipment to Cobham. Test coupons will be delivered to Cobham. The Supplier will either internally or through an approved outside test facility perform a solderability test per IPC-J-STD-003. Any discrepancy will have prior written approval by Cobham prior to acceptance.

**320.1 Certificate of Compliance Key Characteristics**

Printed Wiring Boards described were manufactured according to the specifications detailed in conformance with the requirements specified in the Purchase Order, fabrication drawings and ESR-001. Guaranteed characteristics are as follows:

**General**

a. Cobham Part Number  
b. Quantity  
c. Drawing Number  
d. Drawing Revision  
e. Artwork
f. Board Thickness (With Cu)
g. Solder Mask Color
h. Laminate Color
i. RoHS Compliant Yes/No
j. 100% Test Yes/No
k. Packaged Per ESR-001 Yes/No
l. IPC Standard and Class
m. Date of Manufacture
n. Date of Shipment

Laminate Material
a. Manufacturer
b. Manufacturer Part Number
c. Lot Code
d. Tg
e. Td

Flex Material
a. Manufacturer
b. Manufacturer Part Number
c. Lot Code
d. Tg
e. Td

Conductors
a. Top Layer Cu Weight
b. Bottom Cu Weight
c. Inner Layer Cu Weight
d. Pad Finish
e. Filled Vias Yes/No
f. Type of Fill

Packaging
a. Moisture Barrier Bag with desiccant and Humidity Indicator Card (HIC)

320.2 Flexible and Rigid-Flexible PWB
The manufacturer will build, screen, and inspect flexible and rigid-flexible printed wiring products in accordance with Cobham drawing ST1637822. Any exceptions or deviations must be delineated on the Cobham drawing and / or Cobham specification. In addition to the coupons required for testing, each panel will have at least one corresponding serialized coupon that will be submitted to Cobham with the order. The coupon will be serialized in such a manner as to be identifiable with the boards from the same panel. If shown on the master drawing, one coupon of the Flex Only portion from each rigid flex panel will also be sent. Coupons will not be packaged in the same bag as the board but may be grouped in a single bag. When supplied, coupons that were used for testing will be appropriately identified and traceable to the boards.
320.3 Rigid PWB
The manufacturer will build, screen, and inspect rigid printed wiring products in accordance with Cobham drawing ST1637822. Any exceptions or deviations must be delineated on the Cobham drawing and / or Cobham specification. In addition to the coupons required for testing, each panel will have at least one corresponding serialized coupon that will be submitted to Cobham with the order. The coupon will be serialized in such a manner as to be identifiable with the boards from the same panel. Coupons will not be packaged in the same bag as the board but may be grouped in a single bag. When supplied, coupons that were used for testing will be appropriately identified.

320.4 Solder Mask Requirements
The manufacturer will meet and inspect solder mask per IPC 6012 and ST1637822. Solder mask coverage between all non-common conductors and lands shall be as shown in the applicable artwork. This requirement includes closely spaced surface mount lands. Any requested deviation from this requirement must be submitted in writing to the Cobham Buyer for Engineering approval.

Examples of unacceptable missing solder mask between lands

SPOC 330 – Electronics Solder Requirements
Product covered under this Purchase Order is to be assembled and soldered per ANSI/J-STD-001 Revision (latest), Class 3, (Standard Requirements for Soldered Electrical & Electronic Assemblies), and acceptance criteria based on IPC-A-610 Revision (latest). Workmanship and testing also will conform to the class of IPC-A-610 specified on the purchase order. Any exceptions or deviations must be defined on the Cobham drawing and / or Cobham specification. If solder testing is required per the drawing/specification then the parts must meet the applicable soldering requirements of the specification listed below:

PRODUCT TYPE SPECIFICATION METHOD

a) SEMICONDUCTORS MIL-STD-750 2026
b) MICROELECTRONICS MIL-STD-883 2003
Components will have been tested to the requirements listed in the above list within 18 months of the date Cobham receives the components. The soldering test date (month and year) will be noted on the Certificate of Conformance supplied with each shipment.

**SPOC 340 Electronics Marking Requirements**

If marking permanency is required per the drawing/specification then the parts must meet the applicable marking permanency (resistance to solvents) requirements of their respective specifications:

<table>
<thead>
<tr>
<th>PRODUCT TYPE</th>
<th>SPECIFICATION</th>
<th>METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Semi-Conductors</td>
<td>MIL-STD-750</td>
<td>1022</td>
</tr>
<tr>
<td>c) Rigid Printed Wiring</td>
<td>MIL-P-55110</td>
<td>PARA A.3.8</td>
</tr>
<tr>
<td>d) Rigid Flex Printed</td>
<td>MIL-P-50884</td>
<td>PARA A.3.8</td>
</tr>
<tr>
<td>e) Flexible Printed</td>
<td>MIL-P-50884</td>
<td>PARA A.3.8</td>
</tr>
<tr>
<td>f) All Other Parts</td>
<td>MIL-STD-202</td>
<td>215</td>
</tr>
</tbody>
</table>
SPOC 350 Electro-Static Discharge Requirement
For ESDS (Electrostatic Discharge Sensitive) items, the Supplier will establish and maintain a written electrostatic discharge control program for the control of Electro-Static Discharge (ESD) during fabrication, handling, and packaging of electrical and electronic parts, assemblies, and equipment. The program must comply with the requirements of the most current version of Mil-Std-1686 or ANSI/ESD S20.20.

SPOC 360 Military Customer First Article Inspection
Verification of First Article by the Military customer (military quality assurance and/or Defense Contract Management Agency) is required. The Cobham Quality Assurance Point of Contact will coordinate First Article inspection by the Military customer at the Supplier’s facility.

SPOC 370 – Foreign Object Debris/Damage (FOD) Control
The Supplier will ensure that Foreign Object Debris and subsequent Foreign Object Damage (FOD) is eliminated from all parts prior to shipment. All Suppliers must maintain a FOD free environment during machining, manufacturing, assembly, maintenance, inspection, storage, packaging and shipping.
   a) Potential FOD includes but is not limited to burrs, chips, dirt, corrosion and contamination resulting from the manufacturing, assembly, maintenance, processing, cleaning, storage and subsequent packaging of parts.
   b) Suppliers must ensure all passageways- cast and/or machined are clear of chips, core material, dirt, breakout of cast walls, etc.
   c) Prior to closing inaccessible or obscured areas and compartments during assembly, Supplier will ensure the areas are free of FOD.
   d) Suppliers must ensure all parts are clean and FOD free prior to shipment.
   e) Suppliers are required to maintain a FOD prevention program, which includes prevention and elimination of FOD from the manufacturing processes and work area.

Specific attention should be given, where applicable, to items such as:
   a) Housekeeping and cleanliness
   b) Food and beverage control
   c) Tool and small part accountability
   d) Loose objects
   e) Material handling and parts protection
   f) External cleaning following evidence of external contamination
   g) All oxygen parts defined by drawing must, in addition, be cleaned & supplied in accordance to the requirements of Cobham ST1637806; reference ATSM G93 - Standard Practice for Cleaning Methods and Cleanliness Levels for Material and Equipment Used in Oxygen-Enriched Environments.

Suppliers will ensure that the responsibility for the FOD prevention program is clearly defined and appropriate personnel have received FOD awareness training. Suppliers are also responsible for the flow down of these requirements to their sub-tier Suppliers to ensure FOD free products at all points of manufacturing. For additional information regarding FOD prevention, refer to National Aerospace Standard NAS 412, "Foreign Object Damage / Foreign Object Debris (FOD) Prevention". The NAS 412 document may be used as a baseline FOD prevention resource.
SPOC 380 Counterfeit Electronic Parts Prevention
This SPOC is intended to help reduce the risk of counterfeit and fraudulent electronic parts entering Cobham's supply chain:

a) The Supplier is to flow down these requirements to applicable sub-Suppliers who are performing work on behalf of Cobham
b) Maximize availability of authentic parts; OEM preferred
c) Procure parts from reliable sources; OEM preferred
d) Assure authenticity and conformance of procured parts;
e) Control parts identified as counterfeit within the Cobham supply chain and in the Contract Manufacturers’ supply chain; and report suspect counterfeit parts, known counterfeit parts, and fraudulent parts to other potential users and to Government investigative authorities as required by contract or by law.

The provisions of this SPOC 380 are in addition to Supplier’s responsibility to meet all contractual / purchase order requirements. The requirements of SPOC 380 are intended to supplement the requirements of a higher level quality standard (e.g. AS9100) and other quality management system documents. They are not intended to stand alone or to supersede or cancel requirements found in other quality management system documents, requirements imposed by contract, or applicable laws and regulations unless an exemption/variance has been granted in writing by the Cobham Vice President of Supplier Quality, assemblies provided to Cobham.

380.1 Applicable Documents
The following reference documents are directly associated with this topic.

SAE Publications
AS5553 Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition
Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

Commercial Publications
IDEA-STD-1010 Acceptability of Electronic Components Distributed in the Open Market

380.2 Definitions
Authorized Distributor: “The term Authorized Distributor refers to either:
An OCM-Authorized Distributor or OEM-Authorized Distributor distributing electronic parts or assemblies under a binding contractual agreement with an OCM or OEM; or a Supplier that (i) provides electronic parts or assemblies under the terms of a long term agreement (LTA) with Cobham that specifically identifies those electronic parts, 1) procures electronic parts or assemblies only from sources from an OCM or OEM, 2) establishes an unbroken chain of custody for those electronic parts or assemblies with the source of supply, and obtains written approval from the Cobham Director of Supplier Quality to deliver such electronic parts and assemblies to Cobham. To establish an unbroken chain of custody, Suppliers must maintain physical segregation and control of electronic parts or assemblies procured from either an OCM/OEM, and obtain and retain documentation that substantiates traceability of such electronic parts or electronic assemblies to the OCM, the OEM, or the OCM / OEM-Authorized Distributor.
For the purposes of this SPOC 419, Franchised Distributor is considered synonymous with Authorized Distributor.”

**Broker:** “In the independent distribution market, brokers are professionally referred to as Independent Distributors. See definition for “Independent Distributor”. For SPOC 380 purposes, the Independent Distributor, Broker, Non- Authorized, and Non-Franchised Distributor definitions are synonymous.” Parts from a broker should be considered suspect until tested or validated by a third party test laboratory or OEM.

**CCA Transfer Material:** “All material transferred in accordance with the Cobham Aero Standard Transition Process from a Cobham site to a contract manufacturer or from the closing out of a contract manufacturer and the material transferring to another contract manufacturer.”

**Certificate of Conformance (C of C, CoC):** “A document provided by a Supplier formally declaring that all Buyer’s Authorized Representative purchase order requirements have been legally met. The document may include information such as manufacturer, distributor, quantity, lot and/or date code, inspection date, etc., and is required to be signed by a responsible party for the Supplier.”

**Contract Manufacturer (CM):** “A manufacturing company that generates products or goods on behalf of Cobham, in accordance with Cobham specifications.”

**Counterfeit electronic part, or assembly:** defined in accordance with the SAE G-19 Committee, as it may be amended from time to time. As of October 5, 2011, SAE G-19 Committee defines a counterfeit electronic part or assembly as: “A fraudulent part that has been confirmed to be a copy, imitation, or substitute that has been represented, identified, or marked as genuine, and/or altered by a source without legal right with intent to mislead, deceive, or defraud.”

**Electronic Assembly:** “An assembly containing one or more electronic parts.”

**Electronic Parts:** “Electrical or electronic devices that are not subject to disassembly without destruction or impairment of design use. They are sometimes called electronic components or piece parts.”

**Fraudulent part:** “Any suspect part misrepresented to the Customer as meeting the Customer’s requirements.”

**Independent Distributor:** “A distributor other than an OCM or an Authorized Distributor. For SPOC 380 purposes, the Independent Distributor, Broker, Non- Authorized, and Non-Franchised Distributor definitions are synonymous.”

**Life-Time Buy:** “Procurement of a quantity of parts that is intended to meet all future demand, to the end of all production and field support terms.”

**Non- Authorized Distributor:** “In the independent distribution market, Non- Authorized Distributors are professionally referred to as Independent Distributors. See definition for “Independent Distributor”. For SPOC 380 purposes, the Independent Distributor, Broker, Non- Authorized, and Non-Franchised Distributor definitions are synonymous.”

**Non-Franchised Distributor:** “In the independent distribution market, Non-Franchised Distributors are professionally referred to as Independent Distributors. See definition for “Independent Distributor”. For SPOC 380 purposes, the Independent Distributor, Broker, Non- Authorized, and Non-Franchised Distributor definitions are synonymous.”

**OCM, or Original Component Manufacturer:** “A company that manufactures a part that it has designed and for which it owns the intellectual property rights.

a) The part and/or its packaging are typically identified with the OCM’s trademark.
b) OCMs may contract out manufacturing and/or distribution of their product.
c) Different OCMs may supply product for the same application or to a common specification.”
**OEM, or Original Equipment Manufacturer:** “A company that manufactures products that it has designed and sells those products under the company’s brand name.”

**Pedigree:** “An unbroken chain of custody with known lineage directly from the OCM or OEM.

**Supplier:** “An entity that supplies electronic parts to Cobham or on behalf of Cobham to Cobham’s Suppliers and their sub-tier Suppliers. This includes, but is not limited to, Independent Distributors, Brokers, Third-Party Logistics (3PL) Providers, Contract Manufacturers, and Authorized distributors.”

**Suspect counterfeit part:** “A part in which there is an indication by visual inspection, testing, or other information that it may have been misrepresented by the Supplier or manufacturer and may meet the definition of fraudulent part or counterfeit electronic part or assembly (see following definitions).”

**Third-Party Logistics (3PL) Provider:** “Firms which provide outsourced or "third party" logistics services to companies for supply chain management functions. 3PL Providers typically specialize in integrated operations, warehousing and transportation services that can be scaled and customized to Customer’s needs based on market conditions and the demands and delivery service requirements for their products and materials.”

### 380.3 Requirements

Electronic Parts will be purchased only directly from the OCM or directly from an Authorized Distributor with part pedigree directly from the OCM. Electronic assemblies will only be purchased from the OEM or an Authorized Distributor with pedigree directly from the OEM. In the event that material is not available from these sources, then the Supplier will be governed by the requirements of this SPOC 380, paragraphs 380.2 through 380.8. All parts not purchased from an OCM, OEM, or Authorized Distributor MUST be sent to a third party testing and analysis laboratory capable of assuring the parts are not counterfeit.

### 380.4 A Certificate of Conformance will be provided for the following:

- **a)** Electronic part procured from an OCM or Authorized Distributor with established pedigree to the OCM, Electronic assembly procured from an OEM or Authorized Distributor with established pedigree to the OEM. There is a distinction regarding the level of documentation on a Certificate of Conformance to be supplied when buying parts manufactured to U.S. military standards and aerospace specifications versus parts made to commercial or industrial standards.

- **b)** For procurement of military grade components, a manufacturer’s certification to a specified military or aerospace specification or standard is required. This documentation will contain at a minimum the manufacturer, distributor, distributor purchase order number, part number, quantity, and date code of each quantity supplied.

- **c)** Governing specifications may require additional information to be provided.

- **d)** A copy of the manufacturer’s certification will accompany shipment of parts, or, for parts procured through Authorized Distributors, shipment will be accompanied by a Certificate of Conformance showing proper supply chain traceability.

- **e)** For procurement of product for commercial or industrial use, product delivered by the manufacturer to the authorized distributor is not normally required to contain a formal Certificate of Conformance. In such cases, the accompanying documentation is a commercially acceptable packing list. This document normally identifies the manufacturer, distributor to whom the parts were supplied, distributor purchase order number, part number, and quantity.

- **f)** The Certificate of Conformance must be maintained on file by the distributor and will be made available to Cobham upon request.
g) Shipments of commercial and industrial parts are typically accompanied by a distributor packing list and/or Certificate of Conformance. If a Certificate of Conformance in accordance with these requirements cannot be provided, then the Supplier will comply with the requirements of this SPOC set forth in paragraphs 380.2 through 380.8.

380.5 OCM, OEM
The OCM, OEM, or Authorized Distributor will provide with the shipment a Certificate of Conformance, certifying that the component or assembly provided is the part number being procured on the Cobham Purchase Order. A Certificate of Conformance which certifies the vendor part number, with the Cobham ordered part number identified as “Reference or Customer P/N,” does not indicate certification to the Cobham ordered part number, if the Cobham drawing includes additional requirements. A Certificate of Conformance from an Authorized Distributor must also establish traceability to the OEM or OCM.

a) The preferable method is for the Authorized Distributor to provide a copy of the manufacturer’s certificate for the lot number being supplied, or provided in an assembly, along with their Authorized Distributor certification.

b) Acceptable, but not preferable, is an Authorized Distributor certificate identifying the Original Manufacturer and the source of the Authorized Distributor’s authorization from the Original Manufacturer.

380.6 Authorized Distributor
The Authorized Distributor will affirm that it has valid agreements in place with an OCM or OEM for each product it sells to Cobham or to a Contract Manufacturer who is building product on behalf of Cobham. An Authorized Distributor will only ship products to Cobham or to sub-tier Suppliers on behalf of Cobham pursuant to the terms of an OCM or OEM agreement or under the terms of a long term agreement with Cobham that specifically identifies those Electronic Parts or Electronic assemblies. The Authorized Distributor will be considered an Independent Distributor with respect to any product procured other than pursuant to the terms of an OCM or OEM agreement or under the terms of a long term agreement with Cobham that specifically identifies those Electronic Parts or Electronic Assemblies. An OCM or OEM will not supply electronic parts to Cobham or to sub-tier Suppliers on behalf of Cobham that were acquired from Independent Distributors.

380.7 Purchase of Electronic Parts and Electronic Assemblies
Electronic Parts and Electronic Assemblies will not be purchased by Suppliers from Independent Distributors except (a) in the event that the parts are not available from the OCM or OEM or Authorized Distributor; (b) Cobham has granted its permission to do so in writing. These parts MUST be sent to a third party testing and analysis laboratory capable of assuring the parts are not counterfeit.

380.8 Test laboratories:
Test laboratories that purchase electronic parts or electronic assemblies on behalf of Cobham for up screening testing will purchase electronic parts or electronic assemblies only from the Original Component Manufacturer (OCM) or OEM or an Authorized Distributor with part pedigree directly from the OCM or OEM. In the event that material is not available from the Original Component Manufacturer (OCM) or OEM or an Authorized Distributor with part pedigree directly from the OCM or OEM, then the Test Laboratory will contact the Cobham Supplier
Quality Group or the Buyer’s Authorized Representative. All parts not purchased from an OCM, OEM, or Authorized Distributor **MUST** be sent to a third party testing and analysis laboratory capable of assuring the parts are not counterfeit.

**SPOC 390 Failure Mode and Effects Analysis (FMEA) and Reporting Process**

This SPOC is intended for applications that require specific Cobham approved test failure or anomaly analysis and reporting procedures using FMEA processes.

**390.1 Types of FMEA’s**

There are several types of FMEAs, some more common than others. FMEAs should always be done whenever failures would mean potential harm or injury to the user of the end item being designed. The types of FMEA are:

- **System** - focuses on global system functions
- **Design** - focuses on components and subsystems
- **Process** - focuses on manufacturing and assembly processes
- **Service** - focuses on service functions
- **Software** - focuses on software functions

**390.2 FMEA Usage**

FMEA’s provide the Supplier evaluation a system or failure mode assessment with a tool that can assist in providing reliable, safe, and customer pleasing products and processes. FMEA can help the engineer identify potential product or process failures, they can use it to:

- Develop product or process requirements that minimize the likelihood of those failures.
- Evaluate the requirements obtained from the customer or other participants in the design process to ensure that those requirements do not introduce potential failures.
- Identify design characteristics that contribute to failures and design them out of the system or at least minimize the resulting effects.
- Develop methods and procedures to develop and test the product/process to ensure that the failures have been successfully eliminated.
- Track and manage potential risks in the design. Tracking the risks contributes to the development of corporate memory and the success of future products as well.
- Ensure that any failures that could occur will not injure or seriously impact the customer of the product/process.

**390.3 Reporting Information**

- Purchase contract number
- Part number
- Serial number (s)
- Buyer’s rejection form number
- Applicable test procedures
- Results of special tests performed by seller
- Seller's certification that test procedure used to verify the failure identified by the buyer was adequate to detect those failures. Seller to provide number and revision of test procedure (s) used.
SPOC 400 Single Lot Requirement
The entire quantity ordered will be delivered from one lot date code, batch number, or heat number. The Supplier will contact Cobham if this cannot be accomplished to obtain written authorization prior to shipping multiple lot date codes.

SPOC 410 Single Raw Material Lot
All parts for this purchase order item should be from the same raw material lot number. If a single lot cannot be used, the parts will be produced from as few raw material lots as possible. The parts will be segregated, packaged and identified by raw material lot to maintain raw material lot identification & traceability.

SPOC 420 Manufacturing Plan Required
The Supplier will develop a Manufacturing Plan that defines the manufacturing processes to be employed in the manufacture of the part/assembly. The Supplier is encouraged to maximize the use of current documentation techniques (e.g. Part Tracking Systems, Travelers, etc.). The Manufacturing Plan will be provided to the Cobham Buyer’s Authorized Representative a minimum of 10 working days prior to the initial start of manufacturing. The Cobham Buyer’s Authorized Representative will forward the documents to the appropriate group for review and approval. Manufacturing will not start until the Manufacturing Plan has been approved, in writing, prior to the start of manufacturing. The Manufacturing Plan will include the following as a minimum:
   a) Processing Sequence including a brief description of each main processing step.
   b) Equipment to be used at each step (e.g. Mill, Inspection Equipment).
   c) Any subcontracted procurements including the identification of sub-tier Suppliers (e.g. parts, processes, etc.).

SPOC 430 Manufacturing Readiness Review (MRR)
A joint Cobham and Supplier Manufacturing Readiness Review (MRR) will be conducted at the Supplier’s facility prior to the start of manufacturing when required by the Purchase Order (PO) or Statement of Work (SOW). The Supplier will submit the MRR data package to the Cobham Buyer’s Authorized Representative a minimum of 10 days in advance of the scheduled MRR.

430.1 MRR Objective
The MRR objective is for the Supplier to demonstrate the overall production readiness prior to manufacturing, and to ensure that items to be manufactured will meet the requirements of the PO, SOW, engineering drawings and engineering specifications. The Supplier will demonstrate that all necessary manufacturing plans, inspection plans, travelers (build documentation), tooling, facilities, and other resources are in place and available to ensure meeting all quality and design requirements within the negotiated program budget and schedule.

430.2 MRR Team
The Supplier MRR team will consist of representatives from the management and the technical functions. The management functions will include the contract administrator and responsible project engineer as a minimum. The technical representatives will include design engineer/representative, manufacturing engineer/representative, and quality engineer/representative as a minimum.
430.4 MRR Presentation
The MRR presentation will address the following items as a minimum:
   a. Supplier Project Team Organization with key personnel identified
   b. Overall Program Schedule including current status
   c. Procurement status including all sub-tier Suppliers, and if applicable, Qualification status
   d. Manufacturing milestone schedule
   e. Action Item Status/Review
   f. Design Status (as applicable) including current status, trade-offs, producability studies, lessons learned, etc.
   g. Detailed Manufacturing Flow Diagram including Supplier inspection points and Buyer’s Authorized Representative Mandatory Inspection Points (MIP).
   h. Manufacturing Documentation Status
   i. Inspection Documentation Status
   j. Test Documentation Status
   k. Tooling needs and statuses including drawing status, build status, calibration status, etc.
   l. Facilities Readiness including layout and capacity (including plant tour during MRR).
   m. Operators and Inspectors training records.
   n. Overall Project Risk Assessment; technical, cost, schedule. Should include any plans to mitigate risks identified.
   o. Any additional requirements to be part of the presentation as defined in the PO/SOW.

430.5 MRR Data Package
The MRR data package will include the following as a minimum:
   a. Copy of MRR presentation
   b. Any Subcontractor (Supplier) Data Requirements List (SDRL) items as defined in the PO/SOW

The following documentation, as a minimum, will be available for review at the MRR:
   a. Supplier Drawings and Specifications (as applicable)
   b. Traveler(s)/Build Documentation
   c. Test Procedures (as applicable)
   d. Inspection Procedures
   e. Tooling Drawings

SPOC 440 Standard Repairs of Printed Board Assemblies (PBA)
   Standard Repairs will be performed in accordance with IPC-7711 and IPC-7721. The Supplier will provide a document with each PBA/CCA that has had a standard repair. This document will provide:
      a) Serial number or UCN
      b) Location of the repair (zone on pictorial view of drawing or termination points)
      c) Type of repair performed Example: fill and drill.

SPOC 450 – Insulation, Isolation, Dielectric Testing
Insulation, Isolation, Dielectric isolation (DITMCO) testing is required when called out on the drawing. Records of DITMCO testing will be sent with the parts.

**SPOC 460 Integrated Circuit (ICT) and Flying Probe (FP) Requirements**
When called out on a purchase order or engineering released drawing the Supplier will perform circuit testing by either ICT or FP prior to shipment to Cobham, and will provide certified test coverage reports that:
  a. lists each reference designator tested by each method.
  b. submitted as part of the FAI report (and subsequent delta FAI reports).

**SPOC 470 Supplier Required Source Identification**
This SPOC is invoked when the customer or drawing requires that material or parts or assemblies must be procured from a Qualified Products List (QPL) driven from a Military Specification, an Approved Qualified Process Source (AQPS) driven by a Military Specification, a specified source on the purchase order or an Approved Parts Source List (APSL) driven by Cobham or the Customer. In all cases the Supplier will identify the manufacturer(s) of parts, assemblies, components, or materials furnished under this order. When procurement from a manufacturer listed on an Approved Qualified Process Source (AQPS) is required in accordance with a Military Specification.
  a. The required information will be packaged with each shipment against the Purchase Order.
  b. Supplier Name for each part number
  c. Identification of the Manufacturer for each part number
  d. Identification of Parts, Components and/or Materials
  e. Identification of Specifications of Product

**SPOC 480 Plastic Parts Mold and Casting Mold Identification**
Parts produced from multi-cavity molds (injection or formed) must have mold produced markings that can be used for cavity identification and traceability. Numbers or letters are acceptable.

**SPOC 490 Chemicals and Gases**
For specific requirements Suppliers, carriers, and shippers should consult the most current edition of 49 CFR Parts 100-185. Motor carriers should also consult the Federal Motor Carrier Safety Regulations. The Supplier is responsible to comply with these regulations. Gas Cylinder certification requirements will be called out on the drawing or follow the part numbering specific family requirements outlined in Section 490.1

**490.1 Certification Requirements for Gas Cylinder**
Cobham part numbers beginning with G30-XXXX-XXXX require a certification listing the content of the gas within the cylinder. The certification should list all the gasses contained in the cylinder; typically in percent and parts per million for secondary gasses.

Cobham part numbers that begin will 33xxxxxx will require the following process unless otherwise specified on the drawing. Two Certificates of Analysis must be received for each gas cylinder. The Analytical
Principle*/Instrument will be "O-Servomex 4100" on one cert and "L-Toledo ID 5 By Subtraction" on the other cert. The difference between the two certs will be +/- 0.06 or less per blue print. The Cobham inspector will verify both certs meet drawing requirements for Requested and Certified Concentrations per Table I of the drawing. The Supplier can contact the Supplier Quality Group to answer any questions concerning meeting this requirement. Example Certification below:

490.2 Regulations & Procedures for Shipping Hazardous Materials
The regulations and procedures for shipping “hazardous” materials apply to all individuals involved with the transportation/shipping of hazardous materials. This includes all those individuals who arrange for transport and/or may engage in any of the following activities involving hazardous materials:

- Filling packages
- Marking and labeling packages
- Preparing shipping papers, handling, loading, securing and segregating packages within a transport vehicle, freight container or cargo hold, and transporting.
The U.S. Department of Transportation (DOT) enacts and enforces all hazardous materials (hazmat) transportation laws in the United States. Compliance with DOT regulations is a requirement for any person who offers a hazardous material for transportation.

**GENERAL INFORMATION**

Hazardous Materials Background Information:
The hazardous materials shipper must meet the DOT's hazardous materials regulations (HMR), 49 CFR Parts 171-180, and adhere to the following:

- Check if the chemicals are being shipped or offered for shipment listed in the Hazmat table (49 CFR Subpart B, 172.101)
- Determine to ship Hazmat in small quantity or materials of trade
- Packaging (49 CFR 173)
- Markings (49 CFR 172.300) and Labels (49 CFR 172.400)
- Shipping Papers (49 CFR 172.200)
- Shipping Requirements for Dry Ice
- Shipping Requirements for Liquid Nitrogen

**Hazmat Shipping Procedures:**
Shipping procedures must be adhered to if you determine the materials you are going to ship are hazardous materials as defined by the DOT. A hazardous material is defined as any substance or material could adversely affect the safety of the public, handlers or carriers during transportation. All DOT hazardous materials are listed in the DOT’s Hazardous Material Table. There are nine classes of hazardous materials:
SPOC 500 Requests for Shipping Nonconforming or Incomplete Parts and Assemblies from Supplier to Cobham

This process is used when the Supplier finds material / parts are not conforming to engineering or not complaint and request Cobham MRB to determine next actions to: 1) bring the material / parts back to conforming, 2) cannot use the parts; thus, scrap the parts, 3) initiate investigative process to provide relief through permanent engineering changes, or 4) grant permission to ship as is. In cases where the supplier is granted permission to send in nonconforming parts or assemblies, the parts will be placed on a rejection tag (nonconforming record) at receipt. A copy of the signed off form MUST accompany the shipment. Verbal or email approvals are NOT permitted. If engineering determines a drawing change is acceptable then the Engineering Change Notice, Configuration Control Standard (ST1637815) process will be following. The electronic form can be requested by contacting the Cobham Buyer or your Supplier Quality Group Representative. Additionally, the Supplier must contact and coordinate with the Buyer when SPOC 500 is invoked. Technical questions can be answered by the Design Engineer. ONLY the design engineer with co-signatures from Quality Assurance and the Buyer can grant shipment of non-conforming, noncompliant, or incomplete parts or assemblies. Some examples for use of SPOC 500: 1) parts are not complete and Cobham will complete them to reduce emergent lead time (engineering is OK), 2) tolerance issues on a specific lot that may not impact form, fit, and function (parts will work) and does not
require engineering changes, 3) help the supplier reduce high scrap rates or reduce cost required to meet yield by
documenting a request to have engineering evaluate relief – producability / testability CTI, 4) emergent cosmetic
issues, and 5) emergent compliance issues.

SPOC 500 – Request for Material Review Board
(Deviation Waiver Request) From Supplier

IMPORTANT NOTE: Anytime a Deviation Waiver is requested by the supplier, the Cobham
signed waiver must accompany the parts when shipped and also include in cart package.

For Part Number: __________________________ Zone on Drawing: __________________________

Purchase order number: __________________________ Lot Quantity: __________________________
Defective Quantity: __________________________

Originated By (Supplier OA Rep): __________________________ Date: __________________________

Email Address: __________________________ Phone #: __________________________

Description of issue (Feature or Note That is Out of Tolerance): __________________________

________________________

________________________

________________________

Containment Action (required): __________________________

________________________

Root Cause/Corrective Action/Preventative Action (required): Please attach with this form on separate
paper.

Cobham Approval Signature (required)

Design Engineer: __________________________ Date: __________________________

Quality Engineer: __________________________ Date: __________________________
SPOC 510 Durometer Requirements

Durometer requirements will be called out on the drawing. When called out on the drawing the Supplier is responsible to perform a hardness test to assure the part meets specifications. Hardness in this instance may be defined as a material's resistance to permanent indentation. The term durometer is often used to refer to the measurement as well as the instrument itself. Durometer is typically used as a measure of hardness in polymers, elastomers, and rubbers.

510.1 Method of Measurement

Durometer, like many other hardness tests, measures the depth of an indentation in the material created by a given force on a standardized presser foot. This depth is dependent on the hardness of the material, its viscoelastic properties, the shape of the presser foot, and the duration of the test. ASTM D2240 durometers allows for a measurement of the initial hardness, or the indentation hardness after a given period of time. The basic test requires applying the force in a consistent manner, without shock, and measuring the hardness (depth of the indentation). If a timed hardness is desired, force is applied for the required time and then read. The material under test should be a minimum of 6.4 mm (0.25 inches) thick.

<table>
<thead>
<tr>
<th>Durometer</th>
<th>Indenting foot</th>
<th>Applied mass [kg]</th>
<th>Resulting force [N]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type A</td>
<td>Hardened steel rod 1.1 mm - 1.4 mm diameter, with a truncated 35° cone, 0.79 mm diameter</td>
<td>0.822</td>
<td>8.064</td>
</tr>
<tr>
<td>Type D</td>
<td>Hardened steel rod 1.1 mm - 1.4 mm diameter, with a 30° conical point, 0.1 mm radius tip</td>
<td>4.550</td>
<td>44.64</td>
</tr>
</tbody>
</table>

The ASTM D2240 standard recognizes twelve different durometer scales using combinations of specific spring forces and indenter configurations. These scales are properly referred to as durometer types; i.e., a durometer type is specifically designed to determine a specific scale, and the scale does not exist separately from the durometer. The table below provides details for each of these types, with the exception of Type R.

<table>
<thead>
<tr>
<th>Durometer Type</th>
<th>Configuration</th>
<th>Diameter</th>
<th>Extension</th>
<th>Spring force</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>35° truncated cone (trustum)</td>
<td>1.40 mm (0.055 in)</td>
<td>2.54 mm (0.100 in)</td>
<td>822 gf (0.86 N)</td>
</tr>
<tr>
<td>C</td>
<td>35° truncated cone (trustum)</td>
<td>1.40 mm (0.055 in)</td>
<td>2.54 mm (0.100 in)</td>
<td>4,536 gf (44.48 N)</td>
</tr>
<tr>
<td>D</td>
<td>30° cone</td>
<td>1.40 mm (0.055 in)</td>
<td>2.54 mm (0.100 in)</td>
<td>4,536 gf (44.48 N)</td>
</tr>
<tr>
<td>B</td>
<td>30° cone</td>
<td>1.40 mm (0.055 in)</td>
<td>2.54 mm (0.100 in)</td>
<td>822 gf (0.06 N)</td>
</tr>
<tr>
<td>M</td>
<td>30° cone</td>
<td>0.79 mm (0.031 in)</td>
<td>1.25 mm (0.049 in)</td>
<td>78 gf (0.076 N)</td>
</tr>
<tr>
<td>E</td>
<td>2.5 mm (0.098 in) spherical radius</td>
<td>4.50 mm (0.177 in)</td>
<td>2.54 mm (0.100 in)</td>
<td>822 gf (0.06 N)</td>
</tr>
<tr>
<td>O</td>
<td>1.20 mm (0.047 in) spherical radius</td>
<td>2.40 mm (0.094 in)</td>
<td>2.54 mm (0.100 in)</td>
<td>822 gf (0.06 N)</td>
</tr>
<tr>
<td>OO</td>
<td>1.20 mm (0.047 in) spherical radius</td>
<td>2.40 mm (0.094 in)</td>
<td>2.54 mm (0.100 in)</td>
<td>113 gf (1.1 N)</td>
</tr>
<tr>
<td>DO</td>
<td>1.20 mm (0.047 in) spherical radius</td>
<td>2.40 mm (0.094 in)</td>
<td>2.54 mm (0.100 in)</td>
<td>4,536 gf (44.48 N)</td>
</tr>
<tr>
<td>OOO</td>
<td>6.35 mm (0.250 in) spherical radius</td>
<td>10.7 mm (0.42 in) - 11.6 mm (0.46 in)</td>
<td>2.54 mm (0.100 in)</td>
<td>113 gf (1.1 N)</td>
</tr>
<tr>
<td>OOO-S</td>
<td>10.7 mm (0.42 in) radius disk</td>
<td>11.9 mm (0.47 in)</td>
<td>5.0 mm (0.20 in)</td>
<td>197 gf (1.93 N)</td>
</tr>
</tbody>
</table>

Note: "Type R is a designation, rather than a true "type". The R designation specifies a presser foot diameter (hence the R, for radius; obviously D could not be used) of 18 ± 0.5 mm (0.71 ± 0.02 in) in diameter, while the spring forces and indenter configurations remain unchanged. The R designation is applicable to any D2240 Type,
with the exception of Type M; the R designation is expressed as Type xR, where x is the D2240 type, e.g., aR, dR, etc.; the R designation also mandates the employment of an operating stand".[4]

The final value of the hardness depends on the depth of the indenter after it has been applied for 15 seconds on the material. If the indenter penetrates 2.54 mm (0.100 inch) or more into the material, the durometer is 0 for that scale. If it does not penetrate at all, then the durometer is 100 for that scale. It is for this reason that multiple scales exist. Durometer is a dimensionless quantity, and there is no simple relationship between a material's durometer in one scale, and its durometer in any other scale, or by any other hardness test.

510.2 Supplier Reporting Requirements
When the drawing or PO calls out the durometer requirement then the Supplier will send in the information below with the C of C documentation. The Elastomeric Compound Identification form shown below or the Supplier's equivalent format may be used. Identify the package containing this documentation.

**ELASTOMERIC COMPOUND IDENTIFICATION**

Purchase order no. ___________________________
Compound no: ______________________________________________
Durometer: __________________________________________________
Supplier ________________________________________
Signature _____________________________ Title _________________________
Date ___________________________________________

**SPOC 520 Notice of Change Process**
If Supplier proposes any change to the Goods or Services, it will submit its request through the Notice of Change (NOC) process outlined below. Supplier will request the details of the NOC process from Buyer’s Authorized Representative. Supplier must receive approval from Buyer’s Authorized Representative before Buyer will accept any altered Goods or Services. Notwithstanding the foregoing, Supplier will notify Buyer of all Major Changes.

**Follow the NOC Steps Below:**

- Contact the Cobham’s Authorized Representative when a NOC is warranted
- Provide reason(s) for change.
- Provide Form, Fit, and Function impact details
- Provide engineering documentation / specifications required for impact analysis
- Cobham’s Authorized Representative will coordinate change request with Engineering
- Engineering will assess impact to Cobham’s product / customer requirements
- Engineering will collaborate directly with Supplier’s technical representative
- Engineering will officially notify Cobham’s Authorized Representative of approval / disapproval
- Cobham’s Authorized Representative will process results and coordinate with Supplier

Note: when the IP is owned by the supplier then AS 9100 class 1 changes must be communicated to Cobham through the buyer. AS 9100 class 2 changes typically do not require notification.
SPOC 600 Airbus Common Specific Requirements

600.1 GRESS E-0009 and GRESS AP1013
Products or services provided under this purchase order must comply with the requirements stated in Airbus’ GRESS E-0009 and GRESS AP1013 document (General Requirements for Equipment Suppliers). Buyer’s Authorized Representative (or Buyer’s Authorized Representative’s representative) may assess Supplier’s processes and/or product using the IPCA Industrial Process Control Assessment (or other) to validate compliance.

SPOC 625 Boeing Common Specific Requirements

625.1 – Boeing Approved Source for parts and processes.
Supplier must comply with the latest revision of the D1-4426 Boeing Approved Process Sources requirement specification and be a Boeing approved source. For purchase orders with this SPOC requirement the Supplier must provide documentation with the shipment of part proving the Supplier used the approved Supplier or processor.

625.2 AS9102 First Article Inspection Report, for Boeing Aerospace Company (BAC)
Standard Hardware parts only. Special Clause
BAC controlled standard hardware (bolts, screws, rivets, washers, typically commercial off the shelf items, etc.) does not have to have FAI documentation sent with the first shipment; however, if the First Article Inspection report is not sent with the first receipt of parts, (new or revised) the Supplier must be able to obtain the original manufacture’s First Article Inspection report upon request by Cobham Mission Systems. All other applicable quality requirements must accompany the product/parts shipment.

625.3 X31764 Quality Purchasing Data Requirements – Boeing Commercial Aircraft (BCA)
Suppliers and Sub-Suppliers must comply with requirements outlined in the X31764 document. The document can be acquired at www.boeingsuppliers.com/X31764.pdf.

The following are X31764 Requirements as of January 1, 2015.

1. Mandatory Requirements

Change In Quality Management Representative: The Seller shall promptly notify the Boeing Supplier Quality Representative (SQR) that supports your facility of any changes in the management representative with assigned responsibility and authority for the quality system.

Language: When specifically requested by Boeing, Seller shall make specified quality data and/or approved design data available in the English language.

Change in Manufacturing Facility Location: The Seller shall immediately notify the Boeing SQR that supports your facility, in writing, of any change to the manufacturing facility location of the contracted part or assembly.
Work Transfer: (As defined in AS9100C, 7.1.4 ... from one organization facility to another, from the organization to a supplier, from one supplier to another supplier.)

Non-US Country: The Seller shall not relocate or subcontract to a non-US country (e.g. US to Non-US, Non-US to Non-US) any Boeing contracted part, assembly or component(s) thereof without written notification to and acknowledgment from the Boeing Contract Procurement Agent (PA).

US Country: The Seller shall not relocate or subcontract to a US country (e.g. US to US, Non-US to US) any Boeing contracted part, assembly or component(s) thereof, that includes Category 1 and/or 2 parts as listed and/or defined in the Federal Aviation Administration’s (FAA) Category Parts List, without written notification to and acknowledgment from the Boeing Contracts PA.

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

Supplier may utilize Form X36219 ** “Supplier Initiated Work Transfer Questionnaire” to determine reporting requirements, as possible exemptions may apply.

Once the reporting requirements have been determined and the information on Form X35781 * “Supplier Initiated Work Transfer Notification” is known, notification shall occur to the Boeing Procurement Agent who manages the Seller's contract.

Notification must occur within 5 business days once the following is known –
1. Statement of Work (SOW)
2. ‘To-be’ supplier name
3. ‘To-be’ supplier address
4. ‘To-be’ supplier Quality contact information (name, title and telephone number)
5. First production target date
6. ‘As-is’ supplier information (supplier name and address)
7. Will this be a single sourced Product?

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.

Supplier may utilize Form X36219 ** “Supplier Initiated Work Transfer Questionnaire” to determine reporting requirements, as possible exemptions may apply.

* X35781 “Supplier Initiated Work Transfer Notification” and
** X36219 “Supplier Initiated Work Transfer Questionnaire” forms are available on the Boeing Supplier Portal.

Seller's Inspection Options: Seller shall perform 100% inspection for in-process and final inspection or Seller shall conform to requirements of document D1-8007 "Requirements for Supplier Statistical Plans" as may be amended from time to time. With the exception noted herein Seller statistical sampling procedure/plan conformance to D1-8007 will constitute Boeing Quality approval. Note: Any characteristics identified in the design documentation as "Safety" or "Critical" (or "Safety Critical," et al.) characteristics shall not be accepted using statistical product acceptance methods unless prior written authorization is granted by the specific Boeing design authority, or the method for acceptance is specifically defined in the design documentation. A "Safety" or "Critical" (or "Safety Critical," et al.) characteristic is defined as a characteristic designated by the design authority, where the responsibility for its definition is outside the scope of recommended practice ARP9013. 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 document D1-8007, available at https://suppliers.boeing.com within the "Supplier Quality" webpage.

**First Article Inspection Requirement**: Seller shall perform First Article Inspections (FAI) in accordance with AS/EN/SJAC 9102, Aerospace First Article Inspection Requirement.

**2. As Required/As Applicable**

**Tooling**: The Seller must comply to the requirements of D33200, Boeing Suppliers' Tooling Document. It is the Seller's responsibility to comply with the latest revision of these documents.

**Boeing Document D6-51991**, "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.

**Excess Inventory**: The 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.

**Boeing Approved Process Sources (D1-4426)**: The Seller is required to maintain compliance with this document as maybe revised from time to time. This document defines the approved sources for special processing, composite raw materials, composite products, aircraft bearings, designated fasteners, and metallic raw materials.

**Drop Ship Requirements for Boeing Suppliers**: Sellers contractually required to Drop Ship articles on Boeing's behalf shall adhere to the requirements contained within Boeing Document D6-83720 - "Drop Ship Requirements for Boeing Suppliers".

**8130-9 FAA form "Statement of Conformity"**: Sellers that are approved to complete FAA Form 8130-9 "Statement of Conformity" on Boeing's behalf shall do so in accordance with D6-83570 "8130-9 Conformity Inspection Requirements" and assigned FAA Form 8120-10 "Request for Conformity" instructions.

**AS9015 REQUIREMENTS FOR DELEGATION OF PRODUCT VERIFICATION**: When Seller delegates product verification, Seller shall conform to the requirements of AS9015, “Supplier Self Verification Process Delegation Programs,” 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 AS9015. AS9015 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 AS9015 can be obtained from SAE International at [http://standards.sae.org/](http://standards.sae.org/)

**Validation of Raw Material Test Reports**: When Seller utilizes test reports to accept Seller purchased raw material, the following requirements apply: Test reports shall be checked 100% against Seller's requirements and
applicable specifications. Validation test requirement: Seller shall periodically validate test reports for raw material accepted on the basis of test reports. That validation shall be accomplished by Seller or other independent party through periodic, scheduled tests of raw material samples. Schedules for frequency of tests will be established by Seller based on historical performance of the raw material supplier. Seller shall retain test reports provided by the raw material supplier, as well as Seller’s validation test results as quality records traceable to the conformance of Goods, as specified elsewhere in this Contract.

X31764 REV (1 January 2015)

652.4 Boeing Common Quality Requirements
Below are the common Quality Requirements Boeing flows down to their suppliers. These are to be met as a minimum when working on a Boeing program. They can be obtained by visiting the following website.

http://www.boeingsuppliers.com/clauses/clauses.html

If Cobham SPOCs are greater than the Boeing requirements then the supplier must comply with the Cobham SPOCs. Each Boeing Quality clauses listed has a description of the clause. The supplier should check the Boeing Website to assure no updates have been made by Boeing.

Seller is required to maintain a quality system that complies with the requirements of Appendix B of Boeing Document D6-82479, “Boeing Quality Management System (BQMS) Requirement for Suppliers, as amended from time to time. Boeing Document D6-82479 is incorporated herein and made a part hereof by reference. Boeing reserves the right to conduct surveillance at Seller’s facility to determine whether Seller’s quality system meets the requirements of this clause. A copy of Boeing Document D6-82479 can be obtained at the following URL address: http://www.BoeingSuppliers.com/supplier/

Q019 D1-4426 APPROVED PROCESS SOURCE – DELIVERABLE – 4/17/2015
Seller and/or Seller’s subcontract process sources shall be an approved processor or shall use approved processors as required by D1-4426, "Approved Process Sources". A list of the approved processors and associated processes are available from Buyer’s Procurement Agent or at:
http://www.boeingsuppliers.com/supQual.htm
This clause shall be included in Seller’s subcontracts for work performed under this purchase contract that involves D1-4426 processes.
A Certificate of Conformance and/or equivalent Process Certificate, signed by an authorized agent of the Processor/Seller shall be included with shipping documentation (packing slip/invoice). The certificate shall include purchase contract number, part number(s), Trace Number (as applicable), Process Specification number (with revision), processing date(s) and name and address of the Processor(s) performing each of the D1-4426 Processes.

Q028 ENGINEERING DATASET/DRAWING INFORMATION (VARIABLE) 2/16/2011
Seller shall ensure the engineering documents (e.g. drawing, dataset, parts list, specifications, engineering planning documents, statement of work) of the configuration specified for this contract item is available and applied as the authority for the manufacture and inspection of the ordered Goods. Seller shall ensure goods conform to specified engineering documents and associated revision.

- Seller will contact Buyer’s Authorized Procurement Representative for resolution of differences between configuration of Goods and the contract specified engineering documents and associated revision.
- Seller shall ensure resolution of configuration differences in advance of Seller’s request for Buyer verification (when required) and in any case prior to shipment.

Seller shall record on shipping document, the configuration information of the Goods and, when applicable, serial number. The configuration information shall include the revision for the applicable; engineering documents.

- Drawing and/or Dataset & Revision:
- Parts List & Revision:
- Engineering / manufacturing document (e.g. SPECO) & Revision:
- Specification & Revision:
- Statement of Work & Revision:

**Q029 Digital Product Definition (DPD) / Model Base Information**

Seller shall conform to Buyer’s document D6-51991 "Quality Assurance Standard for Digital Product Definition at Boeing Suppliers" and obtain Buyer approval as DPDCapable if Seller receives, downloads, and/or uses Buyer’s DPD geometry in any format.

- If Seller receives Buyer’s DPD geometry in MBD format, Seller is required to obtain Buyer’s approval as MBD-capable.

- If Seller provides Buyer’s DPD geometry to Seller’s subcontractors in any format, Seller shall impose Buyer’s document D6-51991 as a requirement and is responsible for its subcontractor’s conformance.

- If Seller provides Buyer’s DPD geometry in any format to Seller’s subcontractors, Seller shall comply with all applicable export laws.

A copy of Buyer’s document D6-51991 and associated documents can be obtained at the following URL or are available through Buyer’s Authorized Procurement Representative. [http://www.boeing.com/companyoffices/doingbiz/dpd.html](http://www.boeing.com/companyoffices/doingbiz/dpd.html)

**SPOC 650 Lockheed Common Specific Requirements**

**SPOC 9999 Delegation Supplier Quality Representative (DSQR Certified)**

Cobham hereby delegates to the Supplier the authority to perform in-process inspections and final acceptance inspection for the product described by part number in the purchase order or letter of delegation. The Supplier will maintain inspection records and make them available upon request. Supplier will not delegate inspection authority to sub-tier Suppliers. Suppliers with this delegation authority must first be certified by Cobham: Designated Supplier Quality Representative (DSQR).
<table>
<thead>
<tr>
<th>REVISION HISTORY</th>
<th>DESCRIPTION</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW - B</td>
<td>Developed SPOC manual and used to set-up internal process changes</td>
<td>6/29/2015</td>
</tr>
<tr>
<td>C</td>
<td>SPOC manual Sent to suppliers for feedback</td>
<td>7/1/2015</td>
</tr>
<tr>
<td>D</td>
<td>First full release of SPOC manual</td>
<td>8/19/2015</td>
</tr>
<tr>
<td>E</td>
<td>Updated 50.8 &amp; 50.30 : 50.34 is now Shipments made to Pak Source: SPOC 100: Modified Tables 1 and 2: Replaced 50.33 &amp; combined 50.37 Clarifying NADCAP flow out : Updated SPOC 240 (NADCAP) : Modified SPOC 500 : Changed Records Retention to point to Terms and Conditions : Added 100.2 Certification Requirements for OSP Parts : Added SPOC 625.4 - Common Boeing Flow-Outs : Added 390.3 reporting guidelines : Replaced Score Card Example SPOC 50.39.4</td>
<td>10/26/2015</td>
</tr>
<tr>
<td>F</td>
<td>Added 320.4 Solder Mask Requirements. Modified Table 2. Updated SPOC 240 to remove APSL reference.</td>
<td>11/6/2015</td>
</tr>
</tbody>
</table>