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Supplier Management

Supplier Quality Requirements

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Document Issue Record

Document Issue	Reason / Description of Change
1-11	Details of the changes in Issues 1 to 11 are detailed on the documents in SmarTeam
12	Complete re-write of this document, document formatted into clauses.

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101.1 Introduction

This FRL/QAM/10 document (referred to as QAM-10) has been prepared by Supplier Quality (SQ) Department, Cobham Mission Systems, Wimborne (CMS) to detail the Supplier's responsibility to maintain a Quality Management System (QMS) which will assure that materials, products and services meet the safety, reliability and quality standards required by CMS and its customers.

QAM-10 is divided up into series (100, 200, 300 etc) and clauses (101, 101.1 etc). The clauses that apply to individual suppliers will be detailed in each individual contract/purchase order. Where no specific clauses are referenced on the contract/purchase order, QAM-10 applies in its entirety.

The Supplier must provide written confirmation that it has received and reviewed the latest version of QAM-10 and that is able to work in compliance with the latest version of QAM-10.

101.2 Quality Management System Requirements

The CMS requirement for QMS approval within its supply chain is as follows:

- All ISO 9001
- Manufacturers AS 9100
- Maintenance & Repair AS 9110 (If supplier is not the Design Authority)
- Stockists & Distributors AS 9120

In the event that the Supplier does not hold the above certifications, CMS SQ department will undertake an assessment on the Supplier.

The Supplier must ensure that the contract requirements are adequately flown down to Sub-tier Suppliers. If the Supplier is managing Sub-tier Suppliers, CMS reserve the right to assess and, where necessary, audit the supply chain. The Supplier must ensure that its Sub-tier Supplier agreements contain rights for CMS to undertake such assessments and audits.

If the Supplier holds a QMS Certification, the Supplier must ensure that the QMS is in compliance to the QMS standard and the additional clauses contained in QAM-10.

101.3 Supplier Quality Management Systems

CMS supplier selection criteria includes the review of the Supplier's QMS. CMS' policy is to work with suppliers that are accredited to aerospace industry quality standards.

Where the service provided does not require the application of aerospace standards, or the company are unable to comply, CMS will choose whether to undertake an audit assessment prior to approving as a Supplier. The SQ Director may, add the Supplier to its Approved Supplier list depending on the outcome of the audit assessment; however, such approval may be conditional or may be for a limited scope.

The Supplier QMS must meet the key Quality Management principles bulleted below, and demonstrate:

- Customer focus,
- Leadership and engagement of people,
- The process approach,
- Risk-based thinking,
- Continuous Improvement,
- Evidence-based decision making, and;
- Relationship management.

The Suppliers QMS must identify and manage risks and opportunities within the context of the organisation.

As part of the ongoing monitoring process, CMS requires all approved suppliers to provide copies of the relevant third party Certificates showing the certification body's approval number. The Supplier must forward a valid copy to CMS Supplier Quality upon CMS' request and after any change of scope or location.

Suppliers that hold an Aerospace approval will allow CMS Wimborne access to the audit results available on the Online Aerospace Supplier Information System (OASIS).

101.4 Scope/Applicability

QAM-10 forms part of the Contract between CMS and the Supplier. Where the Supplier is unable or unwilling to comply with any requirement of QAM-10, the Supplier must notify CMS of the areas of non-compliance in reasonable detail and seek guidance from CMS' SQ Director in writing. No deviations to QAM-10 are permitted unless such deviation is received in writing from CMS SQ Director.

CMS will take appropriate action and provide a formal response in writing. If the event of any conflict or contradictions between QAM-10, AS9100 and other CMS supplied information, the Supplier must seek clarification from CMS. CMS' direction on such conflict or contradiction shall be final.

In the event that QAM-10 does not contain the necessary information, the Supplier must notify CMS and request direction. Pending direction from CMS, the Supplier will adhere to AS9100, AS9110 and AS9120 standard or ISO9001 will take precedence.

101.5 Access Clause

CMS will provide reasonable notice of such a request for access. For the duration of the Contract and any provisions which survive termination or expiry, the Supplier will provide full rights of access to its premises, facilities, products in production, documents and records (including any Sub-tier Suppliers and processors) to CMS, CMS' customers and any regulatory representatives for the purposes of demonstrating compliance with the Contract and all applicable laws. The period and scope of the access is referred to hereafter as the "Appointment".

CMS, CMS' customers and regulatory representatives reserve the right to undertake activities that may include, but are not limited to surveys, audits and assessments, inspection of facilities, reviewing goods during the manufacturing process or audits (including Sub-tier Suppliers and processors). The Supplier will provide all required and requested support as reasonably required during the Appointment.

The Supplier will provide the same rights of access as described for the Appointment before a Contract is entered into for the purposes of ensuring that the Supplier has the capability, capacity and any requisite accreditations to undertake the work.

CMS representatives, CMS' customers and regulatory representatives may be assigned on a resident or itinerant basis at the Supplier or sub-tier supplier's facility because of new supplier selection, supplier improvement activities, new product introduction or following poor quality performance.

The responsibilities and authority delegated to these representatives may include, but are not limited to the following:

- Co-ordinate responses against unsatisfactory conditions exhibited
- Conduct initial and periodic QMS audits or product based evaluations
- Review and approve First Article Inspection Reports (FAIR)
- Inspect hardware against design data
- Authorisation for the shipment of products and supporting data, following source inspection
- Reviewing documentation required to adhere to the Material Traceability/Chain of Custody clause 105.7
- Ensure compliance against QAM-10 and any other quality clauses within the Contract

The review of products or services by CMS, its customers or regulatory representatives does not absolve the Supplier's responsibility to provide conforming product, nor shall it preclude subsequent rejection by CMS.

Notwithstanding anything else contained herein, CMS shall be entitled to enter the Supplier or sub-tier Suppliers premises immediately following a serious quality failing, an aviation authority directive or as part of an investigation into an incident involving the Supplier's goods or services with CMS' customers or regulatory representatives. The Supplier will provide all required and requested support during such visit.

101.6 Changes to Quality System, Management, Facilities or Ownership

The Supplier will notify ALL relevant/necessary departments at CMS (to include CMS' procurement department and/or CMS' SQ department) in writing of any changes to their QMS, management, facilities or ownership prior to making changes. Changes requiring notification include, but are not limited to:

- Change in location of facilities or manufacturing equipment. Notification must be before the change takes place and well in advance of changes affecting hardware, system and process qualification.
- Changes in the Supplier's senior management, ownership or name change

- Changes in resource levels that could potentially have a negative impact on process productivity levels or support to the Supplier's quality management integrity
- Change of any site or location to which Special Process qualification has been granted
- Changes to quality leadership
- Change to certification status including suspension or withdrawal
- Change of holder of the design authority or design office location
- Loss or suspension of or any material change to quality accreditation(s)

Where there has been a change in equipment, location, process or personnel a delta or full FAIR may be required in accordance with AS 9102.

The changes discussed above will be notified to CMS using the Communication of Manufacturing and Management Evolution form (CMME) a copy can be found in Appendix A of this document and at the following website:

https://www.cobhammissionsystems.com/about/terms-and-conditions/wimborne-suppliers/forms/

The suppliers own form can be utilised providing it contains the detail required on the CMS CMME form.

101.7 Abbreviations / Definitions

ADS	Aerospace Defense and Securities (formally SBAC)
ATP	Acceptance Test Procedure
C of C	Certificate of Conformity
Chain of Custody	Chronological documentation or paper trail, showing the paper trail, custody, control, transfer, analysis, and disposition of physical or electronic evidence.
CLP	Classification Labelling and Packaging
CMS	Cobham Mission Systems, Wimborne
C of D	Certificate of Design
COTS	Commercial Off the Shelf (Parts); parts whose design is determined by a Supplier
CP	Chemical Processing
Contract	A purchase order issued to the Supplier by CMS together with this document, the requirement (Statement of work, specification, framework agreement or any other document that details the requirement) and the applicable terms and conditions.
Counterfeit Part/s	An unauthorised copy, imitation, substitute, or modified part which is knowingly misrepresented as a specified genuine part of an original or authorised manufacturer
CCF	Customer Communication Form
CSR	Customer Service representative - Supplier review process before a quotation is released (where applicable) and the contract acceptance process as per its ISO9001 accreditation

Design and Build	Means where the Supplier is making equipment to its own drawings
DDP	Declaration of Design and Performance
DMS	Document Management System
DPPM	Defective Parts Per Million
DS	Design Specification (CMS Document)
EC	European Community
EPA	ESD protected area
ESD	Electrostatic Discharge
ETSO	European Technical Standard Order
External Provider	Interchangeable herein with Supplier: a provider of goods, services or products
FOD	Foreign Object Debris / Foreign Object Damage (See AS9146 standard)
FAI	First Article Inspection (See AS9102 standard)
FAIR	First Article Inspection Report
FRS	Flight Refuelling Specification
Grade 1	A definition used to define safety or operation critical parts. The term also covers those parts identified as Grade A
HT	Heat Treatment
IAW	In accordance with
ITAR	International Traffic in Arms Regulations
IPC	Association Connecting Electronics Industries (formerly known as the Institute for Interconnecting and Packaging Electronic Circuits)
LAIR	Last Article Inspection Report
LRU	Line Replaceable Unit
Make-To-Print	A Contract whereby a product is manufactured using CMS' proprietary drawings
MRB	Materiel Review Board
MRO	Maintenance, Repair and Overhaul
MSDS	Material Safety Data Sheet
Nadcap	National Aerospace Defence Contractors Accreditation Programme
NCR	Non-Conformance Report
NDT	Non Destructive Testing

NMSE	Non-conventional Machining & Surface Enhancement
NOE	Notice of Escape
NOPE	Notice of Potential Escape
PAT	Product Acceptance Testing
PCN	Personnel Certification in Non-Destructive Testing
PCP	Process Control Plan
PLM	Product Lifecycle Management
Product	For the purpose of this document a Product is a deliverable item, it may be a Part / / Sub Assembly / Assembly or Material
QA	Quality Assurance
QMS	Quality Management System
REACH	Registration, Evaluation, Authorisation and restriction of Chemicals
RCCA	Root Cause Corrective Action
RPN	Risk Priority Number (RPN = Severity x Occurrence x Detection)
RoHS	Restriction of Hazardous Substances
Special Process	A process where the resulting output cannot be verified by subsequent monitoring or measurement control
Standard Part	A part that conforms to an established industry or government specification, where the design is available within the public domain.
SQ	Supplier Quality
SQE	Supplier Quality Engineer
SQD	Supplier Quality Director
SVHC	Substance of Very High Concern
WEEE	Waste Electrical and Electrical Equipment
Certifying Staff	As per the definition provided in 601.3 paragraph 1
Standard Catalogue Items	Materiel that conforms to an established industry or national authority published specification, having all characteristics identified by text description, National/Military Standard Drawing, or catalogue item
Supplier	A Company providing a service to and/or working to drawings, specifications, etc. supplied by CMS. Also includes the term External Provider
Sub-tier Supplier	A company providing materiel or a service to the Supplier in connection with a CMS Contract
SOP	Standard Operating Procedures

TALT	A change to an Item of Test Equipment (See Alt)
Traceability	A clear and auditable "Chain of Custody" from raw material to final delivery.
Supplier Part	Commercial Off The Shelf (COTs) parts which are referenced in CMS drawing
UKAS	United Kingdom Accreditation Service

102 Environmental Considerations

It is CMS' Policy to reduce CMS' impact on the environment to a minimum and therefore it is necessary that our Suppliers support us in this.

Suppliers that do not have an ISO14001 Environmental Management System in place that is certified by a certification body are encouraged to adopt the ISO14001 standard.

102.1 Materials Hazardous to Health or Environment

It is CMS' policy to eliminate, mitigate or remediate the environmental impacts of CMS' activities.

The Supplier must ensure compliance with all applicable national and/or international environmental regulations as amended from time to time.

Where a dangerous or hazardous substance or compound is supplied to CMS, the Supplier will make available the associated Material Safety Data Sheet (MSDS) and comply with the European legislation on Classification Labelling and Packaging (CLP).

When a MSDS is updated for a hazardous substance or compound supplied to CMS the Supplier will provide the updated version as soon as reasonably practicable after such update.

In accordance with European Regulation (EC) No. 1907/2006 (REACH), the Supplier will:

- Notify CMS via an Article 33 Declaration where the Supplier is aware that a supplied product contains Candidate List Substances of Very High Concern (SVHCs) in relevant concentrations.
- Provide sufficient information to allow safe use of the product in relation to the SVHC content.
- Ensure all products supplied to CMS comply with the REACH Annex XVII restrictions.
- Advise CMS on the inclusion of Candidate List Substances in the goods supplied to CMS, as and when they appear on the REACH Candidate list as required under Article XVII of REACH.

103 Ethics

103.1 Ethical Behaviour Policy

Suppliers must conduct business in an ethical manner in accordance with CMS' Code of Business Conduct, which can be found on CMS' website:

https://www.cobhammissionsystems.com/about/corporate-responsibility-and-sustainability/our-ethical-culture/ and ensure that this requirement is flowed down to Sub-tier Suppliers.

104 Flow Down

104.1 Supplier Flow down responsibilities (to Sub-tier Suppliers)

The Supplier must flow down all relevant clauses of QAM-10 to relevant Sub-tier Suppliers and ensure that compliance against this QAM-10 Document is achieved throughout their supply chain; including without limitation:

a) Ensuring conformity for all externally provided processes, products, and services, including from sources defined by the customer.

b) Ensuring Customer-designated or approved Sub-tier Suppliers, including sources (e.g., Special Processes), are used in accordance with clause 202.

c) Ensuring that the risks associated with the external provision of processes, products and services, as well as the selection and use of Sub-tier Suppliers, are managed (See Clause 106 Risk Assessments).

d) Requiring Sub-tier Suppliers to apply appropriate controls to their direct and sub-tier suppliers, to ensure that QAM-10 requirements are met.

The Supplier through audit and oversight of Sub-tier Suppliers will compile objective evidence of compliance. Objective evidence will be made available to the CMS SQ department promptly upon request. Compliance to this requirement will be assessed as part of CMS' audit process.

Sub-tier Suppliers must be aware of the importance and their contribution to compliance of product to design, product safety, standards of ethical behaviour and counterfeit prevention requirements. The Supplier must flow down relevant parts of QAM-10 document as well as their own clauses to ensure that Sub-tier suppliers achieve compliance and best practice in all the areas listed above.

105 Responsibilities

105.1 Formal Communication with CMS

Where a Supplier has a query, which could have the potential to cause a non-conformance against the CMS requirements, the Supplier will promptly notify CMS. The Supplier will complete the Customer Communication Form (CCF) as provided by CMS with sufficient detail on the non-conformance and potential impact. Alternatively, the Supplier may provide such information to CMS via formal written communication on the Supplier's letterhead paper.

CMS shall communicate the formal approval by the appropriate document i.e. Q document, NCR. The use of ad hoc communication e.g. email, verbal communication does not constitute approval to proceed. Note: This includes historic email authorisations.

For all Contract requirements (including drawing or specification requirements and document requests in support of fulfilling Contract requirements), the Supplier will submit a written notice to the CMS procurement department.

It is the Supplier's responsibility to address any commercial impact to a quality decision with CMS' Procurement team in accordance with the Contract.

105.2 Third Party Approvals

Where the Supplier's scope of approval is accredited by a third party, the third party must be approved by a recognised Certification Body i.e. In the UK by UKAS.

It is the Supplier's responsibility to decline work that is outside of the Suppliers scope of approval. Any work carried out outside of the suppliers scope of approval must be authorised by the CMS SQ Director.

If a third party accreditation / approval is withdrawn, lapsed or suspended, the Supplier will notify CMS at the earliest opportunity. If requested by CMS, the Supplier will immediately establish and implement an action plan to mitigate any risk to the supply of products and/or services and provide a copy of the action plan to CMS quality department.

105.3 Continuous Improvement and CMS Supplier Development

The Supplier shall continually improve the effectiveness of their supply chain. In order to meet this requirement, it is expected in accordance with ISO9001/AS9100 that the Supplier will support this by independently engaging in recognised continuous improvement activities. Recognised improvement tools and techniques include but are not limited to FMEA, Lean, Six Sigma, DMAIC, Kaizen and 5S programmes.

105.4 Quality Plan

CMS reserves the right to require the Supplier to produce a Quality Plan to cover the activities carried out in support of CMS' products.

Quality plans are a way of relating specific requirements to work methods or practices to give greater confidence that requirements will be met and processes are being controlled. Where a Quality Plan is required, the plan will be in accordance with ISO 10005 Quality Management Guidelines for Quality Plans.

105.5 Sub-Tier Supplier Control

The Supplier will evaluate and ensure that all required quality certifications by an accredited certification body are maintained for all Sub-tier Suppliers utilised for materials, goods or services for the life of the Contract. This includes any Sub-tier Supplier where CMS or its customers have directed the Supplier to use. The Supplier will maintain a list of the approved Suppliers used in support of CMS Contracts.

105.6 Foreign Object Debris and Foreign Object Damage Prevention Process

The Supplier will establish and maintain a Foreign Object Debris and Foreign Object Damage Prevention Process. The process must meet the requirements of AS9146. The level and extent of the process and training will be commensurate and applicable to the level of FOD risk reasonably and diligently identified by the Supplier.

105.7 Material Traceability (Chain of Custody)

For clarity, the following definitions are used in QAM-10:

Traceability: - where the Supplier must provide a record of the transactions and processes of a product from the point that the material is utilised for production purposes, starting with the producer of the raw material to make the item. Every transfer between suppliers and processes must be evidenced in verifiable documentation, for example the traceability by conforming Batch / Lot / Date / Heat code references.

Chain of Custody: - As per traceability (above) with the additional requirement that each transfer between supplier and / or processes must be supported by documentary evidence (not just a reference to the documentation as in the case of traceability).

For the purposes of the following requirement, the terms are interchangeable. The Supplier must be clear in the requirements for Traceability / Chain of Custody that will be flown down to the Supplier via the Purchase Order or other terms and conditions.

Material Traceability is required to satisfy National Airworthiness Authorities Conformity and FAI requirements in accordance with AS9102. CMS requires all Suppliers to provide "Traceability / Chain of Custody" for all deliveries. All documents will be provided upon request during or post-delivery of the product.

Any request from the Supplier to deviate from this specific requirement must be notified to CMS at the earliest opportunity prior to manufacture/purchase of the part/materiel(s). A waiver letter may be issued by CMS when CMS determines in its sole discretion that it is appropriate.

Where standard parts/COTS/MOTS/Propriety Parts have been specified on the CMS drawing, the Supplier must obtain such part/materiel from the OEM or the OEM's approved distributor including a C of C stating that part/materiel has been released/manufactured in accordance with desired commercial standard.

105.8 Raw Material Tests and Test Reports

When a Supplier utilises test reports to accept Sub-tier purchased raw material, the following requirements will apply:

The Supplier will comprehensively check such test reports against the Sub-tier's requirements and applicable specifications.

Validation test requirement: The Supplier must periodically validate test reports for raw material accepted on the basis of test reports. The validation must be accomplished by the Sub-tier or other independent party through periodic, scheduled tests of raw material samples. The Sub-tier based on historical performance of the raw material supplier will establish schedules for frequency of tests.

Sub-tier must retain test reports provided by the raw material supplier, as well as Sub-tier's validation test results as quality records traceable to the conformance of Goods, as specified elsewhere in QAM-10.

CMS and customer furnished raw material is not subject to the validation test requirement.

105.9 Handling, Storage, Maintenance and Calibration of CMS Owned Equipment

The Supplier is responsible for ensuring the continued calibration of CMS owned tooling, equipment and gauges while retained at the Supplier or the sub-tier Suppliers premises. Items of CMS owned equipment or gauges must not be used if the calibration period on the certificate has expired. The calibration method and frequency shall be agreed in advance with CMS and will be subject to CMS oversight and audit. Calibration in all cases must be traceable back to the agreed UK National or International Standard.

The Supplier will maintain, protect and preserve any tooling, equipment or gauges retained at its facilities in support of CMS Contracts. The Supplier must promptly and without undue delay notify CMS of any loss, theft, damage or destruction of CMS owned tooling, gauges or equipment while in its possession.

No modifications or changes will be undertaken on any CMS owned tooling or equipment without CMS' prior written approval.

The Supplier must not use CMS owned tools, gauges or equipment on any of its other customer contracts.

105.10 Serial Numbering and Part Marking

The Supplier will part mark Products in accordance with Part Marking Specification DS 01.14 unless otherwise stated on the drawing or otherwise notified in writing by CMS. Any Product(s) identified on controlling drawings, which require serial numbers, must be annotated by a permanent and unique serial number.

Supplier will manage the serial numbering system in line with their company-controlled procedures. To prevent duplication, the Supplier will notify CMS of the proposed serial numbering system for CMS Design or Manufacturing Engineering approval.

105.11 Certification and Release

The Supplier will provide a Certificate of Conformity with all deliveries and will identify the following (where applicable):-

1. Suppliers name and address and reference to PO/contract number and line item number
2. Drawing number / specification to which the part conforms, including the Issue number of the part.
    - Where the purchase order number quotes a different part number and drawing number, both must be stated on the C of C
    - Where the drawing states capital letter followed by lower case letter (e.g. Ab) and the Supplier's system does not account for lower case letters, the documentation

must identify which letter is lower case, for example Issue AB will be identified as LOWER CASE B.

3. Traceability information, if required, representative of each item to include the lot trace (e.g., date, batch, heat) or the individual item trace (e.g., serial number)
4. PAT/ATR or additional test date and the FAI, PCP or NCR references applicable to the product being delivered
5. When multiple item manufacturers (or service providers) and/or multiple lots are included in one shipment, supplier must separate and identify respective manufacturer's (or service provider's) lots, and indicate each lot quantity
6. If goods are CMS furnished, this must be stated on the C of C by part number and quantity
7. A statement that the Product is released in accordance with QAM-10 (stating the issue number)
8. Any DDP / C of D to which it conforms (if applicable)
9. Signature by a person with documented approval to do so
10. Where source inspection has occurred, reference to applicable Q…document number
11. A statement identifying any ITAR controlled deliveries In accordance with the directive of ITAR section 123.9(b) (1). The Supplier must provide a copy of the License for permanent export DSP-5 or Temporary export license DSP-73 in advance of supply to CMS to ensure that the full delivery route to the end user is correctly documented
12. Reference to applicable QMS accreditation registration number
13. A unique reference number from the Supplier
14. A statement confirming the type of work carried out i.e. Manufactured, Inspected and Tested
15. Any prior agreed exceptions:
    - i.e. "released IAW FRL/QAM/10 (Issue XX) with exception of…"
16. Products subject to shelf life control must have the date of manufacture and expiry clearly stated on the C of C
    - A minimum of 90% shelf life must remain at point of delivery unless otherwise agreed in writing by CMS' SQ Director (or delegate) prior to dispatch
    - The typewritten provisions of the Purchase Order shall take overall precedence in the event of conflicting requirements
17. Products subject to calibration carried out by internal or external calibration house must be provided with appropriate C of C and Certificates. A minimum of 90% calibration life shall remain at the point of delivery unless otherwise agreed in writing by CMS' SQ Director (or delegate).
18. In accordance with the REACH Regulation, the Supplier must provide CMS with a REACH Article 33 Declaration including safe use information if the product contains a REACH

Candidate List substance. Such declaration must be provided on first delivery or upon CMS' request.

19. For Make-To-Print contracts, the Supplier's C of C must be fully traceable back to sub-level processes/activities.
    - Sub-level Special Processes/activities (e.g. treatments, NDT testing, painting) must have the certificate number annotated on the C of C. Where chain of custody is required, certification of the work undertaken must be provided with the C of C.
20. The use of staples must not be used on the delivery paperwork. A combined C of C and Delivery note may be used.
21. External Test Houses conducting validation test and/or calibration of the CMS product must be accredited by an industry recognized body (UKAS, ANAB etc).

105.12 Packaging

The Supplier must ensure that all packaging is selected and used to prevent damage and deterioration during the handling, storage and shipping processes.

When provisioning packaging materials, the Supplier must consider the following points and take action to comply where appropriate:-

1. Materials used must be specifically produced and procured for sealing, bagging cushioning and protecting goods whilst in transit.
    a. Manufactured Parts with an exposed thread to be protected (e.g. protective netting)
2. Selection of materials and cartons used for each consignment must afford adequate protection when taking into consideration fragility, surface finish, size, weight and method of transportation and be suitable for the purposes of ensuring that the goods arrive at the customer premises undamaged and packed appropriately to prevent unplanned movement during transit
3. All electrical connectors on equipment and looms must be protected with conductive anti-static black (ESD) plastic dust caps.
4. Connectors that contain fibre-optics must be protected using pink (static dissipative) plastic dust caps covering the whole connector. For fibre-optic connectors, conductive anti-static (black) plastic caps must not be used due to the risk of carbon contamination.
5. For electrical connectors for which no suitable anti-static dust cap is available, the protection and packaging solution must be agreed with CMS Supplier Quality prior to delivery.
6. Cartons for shipping transportation are not required to be new, however they must be clean, free from Foreign Objects and Debris (FOD) and be fit for their intended purpose. Used or shredded paper and packing that could cause a potential FOD issue must not be used.

7. All electrical/electronic equipment and components (e.g. printed circuit boards) and Looms marked as ESDS must be fully enclosed in a sealed metallised shielding bag, which meets the shielding requirements of ANSI/ESD S541. Paperwork associated with the packaged item must not be placed inside the shielding bag.

8. Fibre-optic looms must be packaged such that the loom is not coiled in excess of the minimum storage radius of the loom or fibre.

9. The packaging for looms containing fibre-optics must clearly display a warning label detailing storage instructions, stating:

   WARNING: Fibre optic cable. Do not crush. This cable is liable to be damaged by moisture. Keep ends capped or sealed and store in a cool dry place.

10. All electrical/electronic equipment and components (e.g. printed circuit boards) and Looms marked as ESDS must be handled and packaged in an EPA with an ESD Control Plan in place for the organisation performing the handling/packaging that meets the requirements of ANSI/ESD S20.20 or equivalent.
11. Bags must be sealed by taping, heat sealed or be self-sealing; staples must not be used.
12. Orifices of all components must be blanked and transparent polythene bags must be used to initially seal and protect the component, unless otherwise specified by CMS.
13. Polystyrene balls or chips must only be used in conjunction with fully sealed bags (in accordance with bullet 11 above) or as a secondary packaging to prevent primary wrapped parts from moving.
14. Pallets must conform to standard Euro sizes and be loaded no higher than 1.22m (48”).
15. Where appropriate, all pallet loads must be strapped and sealed with either heat-shrunk polythene or stretch film.
16. Where practical, bulk packing methods must be used and each package identified with its contents and quantity. The overall contents of the package must be listed on the dispatch documentation.
17. Where transportation / packaging is part of the CMS design data, full traceability back to OEM is not required. In order to satisfy the compliance, the Supplier C of C must state that the part numbers of transportation and packaging materials conform to design.
18. CMS reserves the right to reject items received that are deemed by CMS to be inappropriately packaged or without ESD protection where required.
19. Where a dangerous or hazardous substance or mixture is supplied direct to CMS, the Supplier must comply with the Classification Labelling and Packaging (CLP) European Regulation (EC) No 1272/2008.
20. CMS reserves the right to request and define special packaging requirements on the Purchase Order, in the Contract or within other approved CMS documentation provided to the Supplier.

105.13 Retention of Quality Records

All documents must be retained for the life of the platform plus 5 years.

All records must remain archived, retrievable and legible for the required duration as above and made available to CMS upon request. Records shall be provided in an English Language format.

CMS Supplier Quality Department must be notified in writing at least 6 months prior to expire of the document retention period in order for CMS to provide permission to dispose the documents.

This requirement must be flowed down to all sub-tier suppliers.

CMS reserves the right to obtain and preserve Supplier records as deemed necessary.

105.14 Control of Measuring Equipment

Measuring equipment must be calibrated by an accredited service provider such as UKAS and ANAB.

106 Risk Management

106.1 Scope

The Supplier must manage risk to meet the requirements of the standard that they are certified to i.e. ISO9001, AS9100, AS9110 and AS9120 standards. The Supplier must undertake a comprehensive risk assessment of all the Suppliers operations and take all prudent actions to manage and mitigate such risks.

106.2 Communication of Risks

The Supplier must operate a QMS that addresses internal and external communication of the risks identified.

106.3 Outsourced Processes

In some instances, the CMS contract may allow Supplier's organisation to delegate the provision of some processes or the manufacture of components, subassemblies or entire units. In order to maintain an appropriate level of control over the processes, the Supplier's organisation must incorporate and implement risk management processes and procedures ensuring risk control measures are appropriately applied.

106.4 Risk Evaluation and Management Process

Risk evaluation and management must be embedded in the Suppliers day-to-day operations. The overall aim of risk evaluation and management must ensure that the Supplier's capabilities and resources are employed in an efficient and effective manner to manage opportunities and threats and be able to demonstrate effective risk management.

107 Inspection

107.1 General Inspection Requirements

In order to ensure that all parts conform to design, the Supplier must implement a documented inspection plan or procedure that specifies the necessary checks that will be followed and records that will be kept.

The inspection plan must be agreed with CMS and followed for all applicable products. This agreed inspection plan will be referenced in the applicable statement of work or the Purchase Order.

A sampling regime must not be implemented without written authority from the CMS SQE. The use of statistical techniques (e.g. SPC) for Product acceptance and related instructions for acceptance must be agreed with CMS.

Personnel performing inspection operations must be subject to an eye examination, which is aligned to PSL/44A (issued by British Institute of Non-Destructive Testing). The eye examination must include colour perception appropriate to the tasks being performed. Records of eye examinations form part of the Supplier quality records and must be retained by the Supplier.

108 APQP and PPAP

Where required by contract the supplier must implement a process within their management system for Advanced Product Quality Planning and Production Part Approval Process (APQP and PPAP) in accordance with AS9145.

109 First Article Inspection Reports

109.1 First Article Inspection - Detailed Guidance

The following information is for guidance only and any contractual requirement takes precedence. In the event that clarification is required on the requirement for a FAIR, the Supplier will seek guidance from CMS.

The purpose of the FAI process is to provide objective evidence that all design and specification requirements are correctly understood, accounted for, verified and recorded.

All FAIRs must be carried out in accordance with AS9102 FAI requirements. It is the Supplier's responsibility to obtain a controlled copy of the AS9102 standard and to provide evidence of conformance in the AS9102 prescribed format.

Only CMS Supplier Quality Director (or delegate) holds authority to accept the delivery of product without an FAI being completed and approved. Where a formal approval has been granted to deliver a product without an FAI, reference to the approval document must be made on the delivery documentation. The approval document will only apply to the delivery requested and not to any future deliveries. The Supplier must make such requests as early as possible to avoid delay in deliveries.

109.2 New Products:

A FAIR is required for all new Products that are produced to a CMS provided drawing or specification as required by AS9102 (with exceptions outlined below):

a) Where a product is supplied to an FRS drawing (or similar), only drawing features that can be validated and recorded via an AS 9102 FAIR are required to be captured.

b) A FAIR is not required for FRS parts where the FRS only calls up a Standard Part, COTS, MOTS or Proprietary part.

The Supplier must obtain a controlled copy of the AS9102 standard and provide evidence of conformance in the AS9102 prescribed format.

109.3 FAIR Inspection Requirements

The Supplier must perform full inspection on all design features for FAI in accordance with AS 9102, unless otherwise stated on the PO.

The Supplier is responsible for ensuring completion of the FAIR to AS9102 requirements and approving all Sub-tier Supplier FAIRs to AS9102 requirements.

The following points supplement the AS9102 standard, which the Supplier must comply with for all FAIRs submitted to CMS:-

- Any associated non-conformance reports must be appended to the FAIR.
- Approved copies of any PAT/ATR or additional test data must be maintained and appended to the FAIR.
- Material & test certificates/reports (including chemical and mechanical analysis) and manufacturing layout (job cards) must be appended to the FAIR.
- C of C's from the Supplier must be annotated to state that the parts are subject to an FAI and the FAI number must be stated.
- Appendix B of this document provides the detailed guidance on completion of the FAIR to the requirements against each AS9102 form.
- For Design and Build Suppliers, see additional requirements in series 500 clauses.

CMS reserves the right to witness and/or accept FAIRs on-site at the Supplier's premises. To allow CMS to execute such right, the Supplier must notify CMS Supplier Quality and/or CMS Procurement team at least 5 days in advance of the planned FAI completion.

Where CMS' acceptance of FAIRs does not occur at the Supplier premises, the Supplier must submit the FAIR electronically (PDF copies) via email to the following email address:

cms.wimborne.fair@cobham.com

109.4 FAIR clearance prior to ship

The FAIR must be sent to CMS for review 5 days prior to the delivery of the products. The products must not be shipped until the Supplier has received written notification from CMS that the FAIR has been reviewed and approved.

The products will not be deemed delivered unless the FAIR pack has been provided. The risk for the goods will remain with the Supplier until the product has been delivered and paperwork has been received by CMS, whichever occurs last.

109.5 Design Changes

CMS uses three Engineering change classification:

- Class 1 – Usually results in a part number change
- Class 2 - Change is denoted by an Issue change e.g. A to B
- Class 3 – These are then embodied at the next Class 1 or 2 change or when five EPRs have been raised against the part, e.g. Typographical errors.

A full or partial FAIR is required for Products that are subject to Class 1 and Class 2 changes.

One partial FAIR can cover multiple changes implemented between build standards. For example, if the last build was at Rev A, and the next build is at Rev D, the FAIR should cover all changes between A and D.

109.6 Process Change

Full or partial FAIRs are required (as per AS 9102) for significant process changes, for example: first production run or change in process flow. Where requested by the Supplier, CMS can provide guidance to the Supplier as to when a FAIR is required.

109.7 Lapse in Production

AS 9102 extract; *A lapse in production for two years (or longer) shall require an update for any characteristics that may be impacted by the inactivity. This lapse is from the completion of last manufacturing operation to the actual restart of production.*

In order to meet the requirements of the extract above, the Supplier must conduct an assessment to identify any characteristics that may be impacted by the inactivity. This assessment must be documented and reported to CMS using the AS9102 forms.

If it is determined that the lapse has had no impact on the characteristics of the product, the Supplier must report this to CMS using the AS9102 Partial FAIR stating the assessment activities that have been undertaken and a clear statement as to the outcome of the assessment. Any requirement for a FAIR on the Purchase Order or drawing set will take precedence over the guidance within QAM-10.

Should the Supplier be unclear on the requirement, the Supplier must request clarification from CMS SQ department.

109.8 Last Article Inspection Review

The Supplier must supply a Last Article Inspection Review (LAIR) when requested. The requirement will be instigated by the Supplier's transfer of work process on the last shipped product where no further orders are expected at that location. The format of the LAIR must be a FAIR in accordance with AS9102.

110 Grade 1 Part – Approved Manufacturing Plans

The grading of a part is detailed on the CMS drawing. Where Grade 1 parts are to be manufactured, the Supplier must obtain Grade One Part Process Approval (GOPPA). The documents required are available from the CMS procurement team.

The Supplier must inform CMS in the event of a change to the manufacturing process of a Grade 1 part. The Supplier must resubmit the revised manufacturing plan for CMS' approval in advance of further manufacture. The supplier is advised that the expected turnaround time for review and approval of a GOPPA at CMS is 5 days.

111 Process Control Plans

Key characteristics and critical features as defined by the drawing will be recorded via a CMS approved Process Control Plan (PCP).

- All Supplier completed PCP's and associated data/documentation must be provided with each delivery, and the reference annotated on the applicable C of C (s)
- All Supplier completed PCP's must include actual measurements/results for all features identified within the Plan or certificate numbers to validate Special Processes denoted as a critical feature
- Supplier completed PCP's must cover 100% of critical features on the parts delivered and the results are to be individual per part

The Supplier must request a PCP from CMS Supplier Quality or submit a prepared PCP before the manufacture of any parts with critical features. CMS Supplier Quality shall review, amend and approve the said PCP as applicable and will allocate a unique reference number. All PCP's submitted for approval by Supplier will include all identified critical features.

All enquiries on the subject of PCPs shall be directed to the Supplier's nominated SQE at CMS. The Supplier is advised that the expected turnaround time for review, amendment and approval of a PCP at CMS is 5 days.

112 Occurrence Reporting

112.1 Control of Non-Conformance and Reporting

CMS requires that all parts are delivered with Zero Defects and that all parts and assemblies are provided in a condition that complies with design requirements and specifications. CMS will only consider a request for Supplier liability deviations to CMS specifications in exceptional circumstances.

Prior to Contract acceptance, the Supplier must notify CMS of any design feature or specification that is unclear.

The Supplier must not take any action with regards to an NCR without prior approval from CMS Engineering.

112.2 Reporting Non-Conformance

The Supplier must identify goods that are deemed non-compliant to drawing or specification as promptly and without undue delay. The Supplier must quarantine and control such goods to prevent unintended use or delivery to CMS or its customers.

The notification to CMS must be by submission of a Supplier Deviation Request Form (SDR). The SDR will be presented to the Material Review Board (MRB) who will provide a disposition and, CMS may, where deemed appropriate in CMS' discretion, generate an NCR.

Before an NCR will be considered by CMS, the Supplier must have investigated the possibility of re-working or re-making the parts before submission. The Supplier must provide written notification of the investigation to the CMS Procurement and CMS Quality departments, including the rationale behind the reason for not re-working or re-making the product.

CMS will assess the reported non-conformance(s) against Contract requirements and advise the Supplier if such non-conformance(s) is/are accepted or rejected.

1.12.2.1 FRACAS

CMS will notify the Supplier in the event that a non-conformance is identified by CMS' Customer. The Supplier shall be responsible for conducting the associated RCCA analysis.

When a failure occurs in service, it is subject to the CMS Failure Review and Corrective Action System (FRACAS). Where appropriate, the Supplier will be required to support the RCCA activities and provide RCCA within 28 days from receipt of the FRACAS.

112.3 Product Rejection

Where parts are formally rejected by CMS, the Supplier must provide a full RCCA statement no later than 28 days from receipt of the NCR or rejected goods, whichever occurs first. CMS will inform the supplier if the RCCA statement is required earlier than 28 days. The Supplier shall retain title and risk in such goods.

112.4 Scrap

Products dispositioned as scrap shall be conspicuously and permanently marked, and controlled by the Supplier, until physically rendered unusable.

112.5 Delegated Material Review Board (MRB) Authority

Suppliers do not have delegated MRB authority, however where agreed in the Contract and as approved by CMS Design and Engineering, Suppliers must use their own MRB process to approve internal deviations. Defects that impact or deviate from the CMS controlling specification or affect the following aspects of the product; Function, Reliability, Maintenance, Interchangeability, Life, Strength or Safety must be dispositioned by CMS.

112.6 Escape of Non-Conforming Product

The Supplier must, within 24 hours, notify CMS in writing when non-conforming Product is determined to exist or is suspected to exist, which has already been shipped to CMS.

This notification shall include, as a minimum:

- Part number,
- Serial number (where applicable),
  Quantities,
- Certificate of Conformity,
- CMS purchase order number,
- Detailed description of non-conformance
- Confirmation that the non-conformance has been contained at the Supplier (or its sub-tier Supplier) premises, and
- The corrective action taken to address the non-conforming Product.

AS9131 provides guidance for Suppliers on how to report nonconformities. The Supplier may also request a copy of the NOE reporting form (SQ FRM Q01 04) from CMS.

Once notified, CMS will determine any follow up actions needed and report this decision back to the Supplier.

113 Counterfeit Controls

The Supplier must implement a Counterfeit Parts Prevention and Control Plan designed to prevent, detect, and remove any counterfeit components from all CMS products. The Supplier's controls must meet standards AS5553, AS6081 and AS6174.

As required by the standards, the Supplier must report any counterfeit parts to the Government Industry Data Exchange Program, which can be found at http://www.gidep.org/. The Supplier must report any counterfeit parts to CMS at the same time as reporting to the Government Industry Data Exchange Program.

114 Obsolescence Management.

In the event that obsolescence is discovered in component parts for CMS designed sub-assemblies and assemblies, the Supplier shall immediately notify CMS Obsolescence via the following e-mail address: CMS.Wimborne.Obsolescence@cobham.com

The Supplier must adopt and implement a pro-active obsolescence management process, which meets the requirements of IEC 62402. The management shall include monitoring of the supplied product bill of material for obsolete components and its impact to the supplied product. The Supplier must have robust processes to determine mitigation of obsolescence (e.g. Lifetime buy, redesign etc).

Obsolescence issues include cases in which the Supplier possesses adequate part inventory to meet contractual delivery obligations, but there is a known issue with future procurement of components.

Obsolescence issues include all cases in which a component manufacturer or Supplier has announced an End of Life (EOL) or Last Time Buy (LTB).

Suppliers of software must adopt and implement Obsolescence Management processes, which meet the requirements of ISO/IEC 14764.

The Supplier must send a copy of the Obsolescence Monitoring Report to CMS.Wimborne.Obsolescence@cobham.com on a quarterly basis. In addition, the subject of known obsolescence issues must be discussed at the regular order book and Supplier performance meetings.

115 Business Continuity

The Supplier must develop and maintain a Business Continuity Plan in accordance with ISO 22301.

200 Make to Print

Clauses within series 200 apply to all Make-To-Print Contracts.

201 Design Data

The Supplier must ensure it is in possession of, and actively working to, the correct version of the DS. A current list of all CMS DS' and their revision status can be found at the following website: www.cobhammissionsystems.com/cms/wimborne/suppliers

The Supplier may also request versions of the from the Supplier's CMS POC (usually the Buyer).

Unless otherwise specified within the Contract, where DS specifications are up issued, the Supplier will embody the up issued DS specifications at the start of next discrete order or at the launch of the next manufacturing batch for schedule orders. The issue status of the DS followed must be recorded for all products.

201.1 Digital Design Data

The Supplier is responsible for ensuring the integrity of digitally received and transmitted data through a Sealed Data Route, through which only approved personnel can gain access. The sealed data must ensure that no unauthorised changes are made to the data. The Supplier must flow this requirement to the Supplier's Sub-tier Suppliers. Where there is a requirement to translate 3D CAD data, the Supplier muse use a Translation Verification Programme to ensure that the integrity of the data is maintained.

201.2 Preliminary Drawings

A drawing required for discussion, estimating, design review, experimental or other NON-PRODUCTION or QUALIFICATION activity may be released by CMS as a preliminary issue. This will be indicated by ***($)*** in the issuing column.

202 Special Process

The Supplier must manage any processes for production and service provision, where the resulting output cannot be verified by subsequent monitoring or measurement control, through the imposition of Special Processes.

All Special Processes undertaken in support of a Contract must be performed by organisations holding Nadcap. This applies to the Supplier and all Sub-tier Suppliers.

Appendix C contains a link to PRI eAuditNet which identifies Nadcap approved organisations and the Special Processes under the Nadcap approvals.

The Supplier must refer any deviations to this requirement to CMS SQ Director for written approval prior to commencement of work.

CMS reserves the right to either approve or refuse the use of any Special Process Sub-tier Supplier at any time based on, but not limited to, unacceptable Quality, Cost or Delivery performances or specific CMS customer instruction.

The Supplier must document its procedures and criteria for the qualification of Special Processes; including validation and verification. The must shall also define the criteria and frequency for the requalification of Special Processes.

The Supplier must undertake a risk assessment to ensure that all Special Process are identified and controlled throughout the manufacturing process. This shall include:

- Process Parameters
- Skills and Training
- Record Keeping
- Oversight, Inspection and Testing

203 Vendor Parts

Where CMS drawings currently reference vendor part numbers, e.g. COTS parts, the Supplier must use the CMS approved part identified by DS-013. This is permitted without the requirement for a non-conformance (NCR).

In some instances, CMS may authorise the Supplier in writing to continue using the vendor part identified in DS-013 via a concession (NCR). This will be considered on a case-by-case basis at CMS' discretion and any approval does not set a precedence for future decisions.

The Supplier shall notify CMS in advance prior to implementing any significant change to a vendor part process that has a potential to affect form, fit and function.

In the event that a vendor part is shown with a European Technical Standard Order (ETSO) reference, the Supplier is permitted to use the vendor part without the need for an NCR.

Where a standard catalogue item has been identified as a replacement to the vendor part, an FRS part number is not required. If the Supplier wishes to continue using stock of a vendor part the Supplier must submit an SDR to CMS for review and approval.

For parts on an FRS drawing, where the Supplier address is stated as 'obtain from:', the following shall apply:

- Where the Supplier uses multiple sites/campus to manage manufacturing, distribution and order processing, the Supplier is permitted to fulfil an order by using a different site or company name than that listed on the FRS, provided always that the company used is part of the same group or parent organisation.
- This must not be used to permit a change of manufacturing source, which may affect interchangeability.
- The Supplier is permitted to order a vendor part from an OEM's authorised distributor, providing that the manufacturing organisation on the distributor's C of C, is the same as that stated on the FRS drawing.
- If, after CMS written authorisation (through design data or after specific Supplier request), a vendor part is obtained from a third party distributor, the Supplier must provide traceability back to the C of C from the manufacturing organisation that is stated on the FRS drawing.
- In the event that a Supplier provides a product containing multiple parts under a single FRS/FRL part number, each of the individual parts must be listed in the delivery paperwork.

204 Alternative Materials

Alternative Materials must not be used without CMS' written authorisation. Requests to use an alternative material must be submitted to CMS via an SDR for review. Alternative materials are detailed in DS 21.02 and Electrical / Electronic components are detailed in DS-063.

300 Make to Print Electrical and Electronic

Clauses within series 300 only apply to Make-To-Print Contracts for Electrical and Electronic components.

301.1 Standards for Electrical and Electronic Equipment

The Supplier must use industry standards listed below associated with the manufacture of electronic assemblies in all instances when manufacturing CMS designed products, unless otherwise instructed by the CMS design data. CMS SQ department reserves the right to review processes and controls from the standards listed below at the Supplier site, and the Supplier must support such review.

If at any time it is unclear as to what standard is applicable, the Supplier must inform CMS Supplier Quality prior to the commencement of manufacture:

IPC–A–600	Acceptability of Printed Boards
IPC–A–610	Acceptability of Electronic Assemblies
IPC/WHMA–A–620	Requirements & Acceptance for cable/Wire Harness Assemblies

IPC–7711/7721	Rework, Repair, and Modification of Electronic Assemblies
IPC/EIA J-STD-002	Solderability Tests for Component Leads, Terminations, Lugs, Terminals and Wires
ANSI/ESD–S–20:20	Protection of Electrical/Electronic Parts, Assemblies & Equipment
IPC J–STD–001	Requirements for Soldered Electrical and Electronic Assemblies

For the IPC Standards listed above, if the class is not specified on the drawing, or other procurement documentation, then the standard shall be applied at class 3.

301.2 Waste Electrical and Electronic Equipment (WEEE)

Unless excluded by Contract, the Supplier must ensure compliance with the latest RoHS & WEEE Regulations to prevent hazardous substances from entering the production process and thereby keep them out of the waste stream.

301.3 Lead Free Solder

The solder to be used will be defined on the CMS assembly drawings. The Supplier must ensure that it has verifiable processes to prevent incorrect solder being used during assembly.

400 Software (Including use within Complex Electronic Hardware)

Clauses within series 400 apply to all Software provider contracts.

401.1 Quality Management System Requirements

Suppliers providing software writing or testing services must be approved to ISO 9001, using ISO 9001 for Software Quality Management System Construction, Certification and Continual Improvement, and must have previous experience in software projects to the requirements of RTCA/DO-178 (Software Considerations in Airborne Systems and Equipment Certification).

All Supplier software activities and deliverables are subject to full verification and approval by CMS.

Any queries regarding software activities must be referred to the CMS Software Quality Engineer for review.

Where the Supplier designs or develops components that use complex hardware, Suppliers must ensure they do so in accordance with following guidance:

RTCA DO-254 and EUROCAE ED-80 - Design Assurance Guidance for Airborne Electronic Hardware

401.2 Approved Software Development Plans

The Supplier's Software Development standards must be submitted to CMS for approval.

500 Design and Build / Design and Support

Clauses within series 500 apply to all Design and Build / Design and Support contracts.

501.1 Design Life Cycle Management

If the Supplier is providing design support either as an independent service or as part of a Design and Build Contract then the Supplier must operate a Design Assurance Lifecycle management Process in accordance with BS EN 61160 and a Configuration Management process in accordance with Quality management systems Guidelines for configuration management ISO10007.

501.2 Declaration of Design Performance (DDP) & Compliance to FRS documents

In addition to clause 105.11 of QAM-10 (certification and release), the Supplier's C of C must make reference to the applicable approved DDP (this may be also be a Certificate of Design (C of D)) for the Products being verified by the Supplier. For Products where verification is being performed by CMS, the Supplier must provide a compliance statement against the applicable equipment specification as listed on the FRS drawing.

501.3 Product / Production Acceptance Testing (PAT)

Where defined within the CMS specification, the Supplier must ensure that goods are subject to PAT procedures.

Each set of PAT results must include the following:

- Supplier name
- Date of testing
- Signature or stamp of individual performing the test
- Test procedure document number and revision letter
- CMS part number, including the dash number
- Minimum and maximum test limits
- The actual numerical test results
- Serial numbers of the unit tested, to ensure that the results for each unit are known and traceable.

The Supplier must provide a copy of the test results with the product at the point of delivery to CMS unless otherwise agreed in advance in writing with CMS SQ Director (or delegate).

501.4 Design and Build FAI requirements

Where the content of assembly or detail within the FAIR includes Supplier background IP related information, or the size of the FAIR pack makes it difficult for the Supplier to submit as a full FAIR

pack, then the CMS SQ Engineer may permit the Supplier submit a revised content of the FAIR pack. The complete FAIR pack may be subject to CMS' approval at the Supplier facility.

501.5 Notification of Design Change

The Supplier must notify CMS of any design changes and seek approval from CMS via a change proposal.

Changes must be notified in writing using the Supplier's change documentation unless otherwise specified in the Contract. The Supplier must not proceed with implementing any design change without CMS' prior written approval.

Where a material or chemical contained in approved design, production or maintenance data is no longer available, the Supplier must obtain prior approval from the design organisation responsible for the original data prior to using substitute materials or chemicals.

Alternative materials or chemicals offered by Sub-tier Supplier and stockists must only be accepted by the Supplier where objective evidence of design organisation acceptance (such as a formally issued alternative materials list) is available.

501.6 Lead-Free Control Plans

Suppliers of Design and Build electronic hardware must have a Lead-Free Control Plan (LFCP) in accordance with the requirements of GEIA-STD-0005-1-A or IEC/TS 62647-1, unless leaded solder is specified on the drawing.

600 Maintenance, Repair and Overhaul (MRO)

Clauses within series 600 apply to all Maintenance, repair and Overhaul contracts.

601.1 Facilities

The Supplier must determine, provide, and maintain the environment necessary for the operation of its processes and achieve conformity of products and services.

The Supplier must provide segregated areas and ensure that there is no contamination between new build parts and tooling and repaired or reworked items. This area must be appropriate for the tasks being completed.

The Supplier must have secure, restricted access storage facilities and segregate serviceable or new aircraft components and materials are from unserviceable aircraft components and materials.

601.2 Personnel

The Supplier must establish personnel competency records for all personnel involved in product realisation, which may include, without limitation, development, design, manufacturing, testing, MRO and certification activities. Specific records of training, approval and re-evaluation must be maintained for all such personnel.

Human factors involves gathering information about human abilities, limitations and other characteristics, and applying it to tools, machines, systems, tasks, jobs, and environments to produce safe, comfortable and effective human use.

Human factors affecting the performance of personnel must be specifically considered and acted upon by the Supplier.

The Supplier must ensure that all personnel undertaking Non-Destructive Testing (NDT) shall be accredited to national standards, PCN Level 2 as a minimum. Any exception to this requirement is subject to CMS' prior written approval.

601.3 Certifying Staff

The Supplier must identify specific staff that have responsibility for certification of products or services supplied in support of MRO specific contracts (herein referred to as Certifying Staff).

The Supplier must ensure that Certifying Staff have adequate understanding of the products or services and that all Certifying Staff are subject to ongoing assessments to confirm that they are competent, holds the correct qualification and have the capability to carry out their intended duties effectively. Clause 107.1 details the Supplier's responsibility for eye examinations, which is in addition to this clause 601.3.

The Supplier must maintain records relating to the selection, training, authorisation (including allocation or reallocations of responsibilities and authorities) and ongoing assessment of Certifying Staff, and make such records available to CMS upon request.

601.4 Equipment, Tools and Materials

The Supplier must possess all necessary equipment, tools and materials that are specified within design data or required to complete the task. All tools and equipment must be controlled in terms maintenance checks and/or calibrated to a national standard.

Traceability must be maintained for all materials, which will form part of the final supplied goods.

601.5 Component Strip Survey

The Supplier will conduct and document a Performance/Strip Survey on the equipment, tools and materials to identify the maintenance, overhaul and repair activities required to return the component back to a serviceable condition. The Performance/Strip Survey must then be provided to CMS for review and approval before any maintenance, overhaul or repair activity is started.

If at any time during the repair activity, the Supplier receives a component in a condition that could seriously hazard the safe operation of the equipment or aircraft, the Supplier must report this to CMS immediately.

601.6 Maintenance Data

The Supplier must ensure that all applicable original design or maintenance data are available to all personnel undertaking maintenance tasks.

601.7 Maintenance Records

The Supplier must create Route Cards and records for all maintenance tasks undertaken. These records shall include:

- Performance/Strip Survey reports
- Records and details of works carried out
- Details of all parts and materials used or replaced during repair
- Evidence that requirements have been met (e.g. PAT Results, dimensional reports)
- Evidence that sub-contract companies comply with the above

Such records must be archived, retrievable and legible for the defined retention period (See clause 105.13)

Electronic records must be backed up every 24 hours.

601.8 Procedures and Quality Management System

Where MRO quality requirements in the Contract are outside of the Supplier quality accreditations and QAM-10, the Supplier must provide a quality plan detailing the controls to manage the additional Contract quality requirements.

601.9 Suspected Unapproved Parts

The Supplier must quarantine and control any article that it suspects might not have been produced or maintained in accordance with the approved design data and applicable statutory and customer requirements.

The Supplier must implement this requirement in accordance with clause 113 (Counterfeit Parts).

601.10 Control of Maintenance Data

The Supplier must preserve maintenance data to ensure that aircraft components and related operational and emergency equipment are maintained in a condition to ensure continued airworthiness. This data shall include without limitation maintenance programs, airworthiness directives, service bulletins, repairs / modifications, operator maintenance manuals, drawings, maintenance manuals and technical orders.

601.11 Maintenance Process Verification

The Supplier must ensure that the first application of a maintenance process (e.g. new repair scheme) is properly evaluated, verified and documented in order to verify that the new processes, personnel, documentation and tooling are capable of performing the maintenance in compliance with the approved maintenance data.

Appendix A - CMS Communication of Manufacturing and Management Evolution Form

Communication of Manufacturing and Management Evolution (CMME)	COBHAM

To Be Completed By CMS Suppliers

1.Product Identification

Supplier:	
Plant Location:	
Parts Number:	

2.Description of Change

2a Type of Change:

Plant Location or layout	☐ Yes	☐ No
Change of Suppliers Third Party Approval (Incl Special Processes)	☐ Yes	☐ No
Enterprise Resource Planning (ERP)	☐ Yes	☐ No
Top Level Organisation and or Personnel at Key Position	☐ Yes	☐ No
Major Process (Manufacturing, Assembly, Testing, Inspection or Tooling)	☐ Yes	☐ No
Major Supplier (Including Subcontractors)	☐ Yes	☐ No
Design Changes (Design and Build Suppliers Only)	☐ Yes	☐ No

2b Change Description:

2c Reason for Change:

3.Submitted By:

Name:	Date:

4.Risk identification & Mitigation Action:

To Be Completed By CMS Supplier Quality

5.Additional Information:

6. Is Customer Notification Required?

7.Approval:

Procurement	Quality
Title:	Title:
Name:	Name:
Date:	Date:

SQ FRM Q01 01 – Communication of Manufacturing and Management Evolution (CMME)

Please Select Classification Level

Appendix B - FAI Requirements AS9102

Form 1: Part Number Accountability

Note: If any of the Fields are Non Applicable to your First Article, then you must insert N/A into that respective Field. Do not leave it Blank

Field Number	Required Information
Sheet 1 of _	Normally this would be Sheet 1 of 1, but if you need to use more than 1 sheet, then number accordingly. For example if you need 2 sheets, then the first sheet would be numbered 1 of 2. The second sheet would be numbered 2 of 2.
1: Part Number	As stipulated on the Drawing.
2: Part Name	As stipulated on the Drawing
3: Serial Number	If applicable then quote the Serial Number here. If not applicable then you must state N/A. **Do not leave the Field Blank!**
4: FAI Report Number	This Field can be used (for traceability purposes) by the Supplier/Manufacturer preparing the FAI as their own unique FAI Report Number. If you choose not to use it, then insert N/A. **Do not leave it Blank!**
5: Part Revision Level	This is the latest Revision Level as stated on the Drawing.
6: Drawing Number	Taken from the Drawing (It's usually the same as Field 1)
7: Drawing Revision Level	As per Field 5.
8: Additional Changes	For Example: A NCR Number. If there are no additional changes then insert N/A. **Do not leave it Blank!**
9: Manufacturing Process Reference	This can be the Reference Number of the Work Order, Traveller, Method of Manufacture or Route Card.
10: Organization Name	The Full Name and Address of the Supplier/Manufacturer performing the FAI
11: Supplier Code	The Supplier ID Number as given by the Customer who has issued the Purchase Order.
12: PO Number	The Purchase Order Number for the part Number shown in Field 1.
13: Detail FAI Or Assembly FAI	You must indicate if this is a "Detail FAI" or an "Assembly FAI" by either 'ticking' or placing an 'X' in the appropriate box. *See also Note a) and b) on page 3.*
14: Full FAI Or Partial FAI	You must indicate if this is a "Full FAI" or a "Partial FAI" by either 'ticking' or placing an 'X' in the appropriate box. *Please Note: If you indicate that this is **a Partial FAI** then you must also state the **Baseline Part No (Including Revision Level) and Reason for the Partial FAI** in the field provided*
Note a)	*If the part number stated is a Detail FAI, then go straight to Field 19.*
Note b)	*If the part number stated is an Assembly FAI, then you must go straight to the INDEX shown in Field 15.*

Field Number	Required Information
15: Part Number	List all Part Numbers (on individual lines) that make up the Assembly FAI. Includes Standard Hardware (Nuts, Bolts, and Rivets etc.)
16: Part Name	List all the Part Names (on corresponding individual lines) that make up the Assembly FAI
17: Part Serial number	If the part has a Serial Number, then list it here. If not, then insert N/A. **Do not leave Blank!**
18: FAI Report Number	If applicable, this Field can be used (for traceability purposes) by the Supplier/Manufacturer preparing the FAI as their own unique FAI Report Number. If you choose not to use it, then insert N/A. **Do not leave it Blank!**
19: Signature	Mandatory Requirement: Printed Name (or Unique Identification) and Signature of the person approving the FAIR (author). Note: *Although it does not stipulate, it is a **Good Working Practice (GWP)** to print your name in **Block Capitals** – and then sign it. If the signatory has a Quality Assurance Stamp, then once again it is considered to be a **GWP** to "stamp" this Field as well.*
Note 1)	*Please note that a Signature is mandatory and by signing this form you are indicating that: -* • *All characteristics are accounted for.* • *They meet the Drawing Requirements* • *And/or are properly Documented for Disposition*
Note 2)	*You must also indicate by means of a 'tick' or 'X' that the FAI is Complete or Not Complete* ***Chap 4.4 Refers (If NCR applies "FAI not complete" must be chosen)***
20: Date	Complete the Date in the following format only: - Day/ Month/Year ➢ Day = Two Digits. ➢ Month = The first three letters of the Month ➢ Year = The last two digits of the year For example: the 9th of April 2009 would be written like this: - 09 Apr 09
21: Reviewed By	This Field is not mandatory – however if the FAI is reviewed (and this is considered to be a **GWP**) then it cannot be reviewed by the same person stated in Field 19. If the FAI is reviewed then once again - although it does not stipulate it - it is also **GWP** to print your name in **Block Capitals** – and then sign it. If the signatory has a Quality Assurance Stamp, then once again it is considered to be a **GWP** to "stamp" this Field as well.
22: Date	Complete as stipulated in Field 20
23: Customer Approval	This Field will be completed (as indicated) by the Customer upon Approval of the FAI
24: Date	To be completed the same as Field's 20 & 22

Form 2: Product Accountability – Raw Material, Specifications and Special Process(s) and Functional Testing.

Note: If any of the Fields are Non Applicable to your First Article, then you must insert N/A into that respective Field. Do not leave it Blank

Field Number	Required Information
Sheet 1 of _	Normally this would be Sheet 1 of 1, but if you need to use more than 1 sheet, then number accordingly. For example if you need 2 sheets, then the first sheet would be numbered 1 of 2. The second sheet would be numbered 2 of 2.
1: Part Number	As stipulated on the Drawing.
2: Part Name	As stipulated on the Drawing
3: Serial Number	If applicable then quote the Serial Number here. If not applicable then you must state N/A. **Do not leave the Field Blank!**
4: FAI Report Number	This Field can be used (for traceability purposes) by the Supplier/Manufacturer preparing the FAI as their own unique FAI Report Number. If you choose not to use it, then insert N/A. **Do not leave it Blank!**
5: Material or Process Name	As the title suggests, in this Field you must list the Process and/or Material as detailed in the applicable specification.
6: Specification Number	Taken from the Drawing and (if applicable) must include the Revision. For example DS26.00 D6A
7: Code	If applicable – here you would insert the Process and/or Material Code as per the Customer's system. For example: If the spec calls out DS26.00 D6A as above, you must make reference to either the Def Stan 03-18 or Mil-DTL-5541F, whichever was used.
8: Supplier	Identify Supplier name, address, and code performing special processes or supplying material. Supplier name and address may be used, when Supplier code is not available or not adequate for identification. **Do not leave this field Blank.**
9: Customer Approval Verification (Yes / No / N/A)	Based on Field 8, if you have submitted the Name, Address and Approval Number in Field 8, then simply insert the word "Yes". If there are no Special Processes, then insert N/A. If process source is not approved insert "No" **Do not leave this field Blank.**
10: Certificate of Conformity	Here you must quote the actual number taken from the Certificate of Conformity (C of C) as supplied by the Supplier who supplied the Process and /or Material listed previously in Field 5. You must also include copies of each C of C as documentary evidence.
11: Functional Test Procedure Number	If you have performed any Functional Testing, then you must do 2 things: - 1. Insert the Functional Test Procedure Number in this field. 2. Provide documentary evidence. If there has been no Functional Testing, then simply insert N/A. **Do not leave it Blank.**

Field Number	Required Information
12: Acceptance report number, if applicable	If you have an Acceptance Report, then simply insert the number here – and include documentary evidence. If there has been NO acceptance check carried out by the Supplier/Manufacturer preparing the FAI, then insert N/A. **Do not leave it Blank.**
13: Comments	Free Text box for any associated Comments – if none – then state "NONE" **(GWP)**
14: Prepared By	Mandatory Requirement: Printed Name (or Unique Identification) and Signature of the person approving the FAIR (author). Note: *Although it does not stipulate, it is a **Good Working Practice (GWP)** to print your name in **Block Capitals** – and then sign it. If the signatory has a Quality Assurance Stamp, then once again it is considered to be a **GWP** to "stamp" this Field as well.*
15: Date	Complete the Date in the following format only: - Day/ Month/Year ➢ Day = Two Digits. ➢ Month = The first three letters of the Month ➢ Year = The last two digits of the year For example: the 9th of April 2009 would be written like this: - 09 Apr 09

Form 3: Characteristic Accountability, Verification and Compatibility Evaluation

Note: If any of the Fields are Non Applicable to your First Article, then you must insert N/A into that respective Field. Do not leave it Blank

Field Number	Required Information
Sheet 1 of _	Normally this would be Sheet 1 of 1, but if you need to use more than 1 sheet, then number accordingly. For example if you need 2 sheets, then the first sheet would be numbered 1 of 2. The second sheet would be numbered 2 of 2.
1: Part Number	As stipulated on the Drawing.
2: Part Name	As stipulated on the Drawing
3: Serial Number	If applicable then quote the Serial Number here. If not applicable then you must state N/A. **Do not leave the Field Blank!**
4: FAI Report Number	This Field can be used (for traceability purposes) by the Supplier/Manufacturer preparing the FAI as their own unique FAI Report Number. If you choose not to use it, then insert N/A. **Do not leave it Blank!**
5: Char No	This should be a unique identification number such as the "Bubble Number" taken from the Drawing.
6: Reference Location	This should be the exact grid reference location of the "Char No" (as indicated in Field 5) taken from the drawing, DPD model or specification callout.
7: Characteristic Designator	If applicable, for example and Key or Critical Characteristic shown on the drawing. If none then insert N/A, **do not leave it Blank.**
8: Requirement	Insert the actual requirement as taken from the drawing (and/or engineering document) **including tolerances**. *Please note that every design characteristic requirement has to be accounted for, uniquely identified and must have the inspection results traceable to each unique identifier – this includes all Standard Notes, Part Notes from all engineering documents.*
9: Results	Here you must display the measured results and how they were measured. (Note: if there are multiple requirement locations, then list each individual result or a range of results 'Min to Max'
10: Designed Tooling	If specially designed tooling was used in the manufacturing process, you must state the Name of the Owner and Tool Identification Number here. For example if you have used a Rolls-Royce owned tool, simply insert "Rolls-Royce and the Serial Number" If no specially designed tooling was used, then insert N/A. **Do not leave Blank**
11: Non-Conformance Number	If a Non Conformance has been discovered and approved for non-conforming characteristics, then you would insert the Number here. If not applicable, then insert N/A. **Do not leave it Blank.**
12: Prepared By	**Mandatory Requirement: Printed Name (or Unique Identification) and Signature of the person approving the FAIR (author). Note: *Although it does not stipulate, it is a Good Working Practice (GWP) to print your name in Block Capitals – and then sign it. If the signatory has a Quality Assurance Stamp, then it is considered to be a GWP to "stamp" this Field as well. Note: The Signature indicates that all characteristics are***

Field Number	Required Information
	accounted for; meet drawing requirements or are properly documented for disposition.
13: Date	Complete the Date in the following format only: - Day/ Month/Year ➢ Day = Two Digits. ➢ Month = The first three letters of the Month ➢ Year = The last two digits of the year For example: the 9th of April 2009 would be written like this: - 09 Apr 09
14: Optional Fields	Insert additional columns as required by the Organisation or Customer

General Note: This guide/instruction is in accordance with the requirements of the AS/EN/SJAC9102 Rev B.

There are numerous areas where CMS have requested additional information – these are defined as Good Working Practices

Appendix C – Useful Links for Suppliers

International Aerospace Quality Group (IAQG)
https://www.sae.org/iaqg/

IAQG OASIS
https://www.iaqg.org/oasis/login

IAQG Supply Chain Management Handbook (SCMH)
https://www.sae.org/servlets/registration?PORTAL_CODE=IAQG&OBJECT_PKG=iaqg.businessClasses&OBJECT_TYPE=SCMHGeneral&PAGE=gotoSCMH

PRI eAuditNet (Nadcap approved organisations) -
https://www.eauditnet.com/eauditnet/ean/user/login.htm