
Type A	Type B	Type C	Type D	Type E	Type F	Type G	Type H	Type I	Type J	Type K	Type L	Type M
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QRS-122

Supplier Component Maintenance / Operative Manuals Management

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CHANGES LOG

Issue	Approval Date	Main changes	Interested Paragraphs
00	April 2015	First Issue	All

REFERENCE DOCUMENTS

Documents level	Document code (, paragraph) and title
Higher Level COS Documents	
	QRS-01 Quality Requirements For Suppliers

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1 Purpose

Purpose of this document is to describe the process and responsibilities to guarantee, for each Supplier component, the availability of the required Instructions for Continuous Airworthiness and information for operation.

2 Applicability

This procedure shall be applied by the Supplier excepts for those one selling standard parts or not repairable parts.

3 Effective date

July 2015.

4 Ownership

The Supplier Quality Assurance (SQA) is responsible for coordinating the input of content to this QRS and any subsequent amendments supported by other relevant Departments/Functions as required.

5 Acronyms, definitions and abbreviations

AMP	Aircraft Maintenance Program
AMPI	Air Vehicle Maintenance Planning Information
AW	AgustaWestland
CMM	Component Maintenance Manual
H/C	Helicopter
IPC	Illustrated Parts Catalogue
IPD	Illustrated Parts Data Publication
MM	Maintenance Manual
MPM	Maintenance Planning Manual
OM	Operative Manual
PSE	Product Support Engineering & Licenses
RFM	Repair Fault Manual

6 Means of Understanding

The use of *shall*, *should*, *must*, *will* and *may* within this document *shall* observe the following rules:

- the word *shall* in the text denotes a mandatory requirement: deviations from such a requirement is not permissible without formal agreement,
- the word *should* in the text denotes a recommendation or advice on implementing such a requirement of the document; such recommendations or advice is expected to be followed unless good reasons are stated for not doing so,
- the word *must* in the text is used for legislative or regulatory requirements and *shall* be complied with,
- the word *will* in the text denotes a provision or service or an intention in connection with a requirement contained in this document,
- the word *may* in the text denotes a permissible practice or action; it does not express a requirement contained in this document.

These means of understanding are applicable in the entirety of the document.

7 Requirements

Each aircraft component has to be properly described into dedicated technical documentation. Such documentation, usually in form of Component Maintenance Manual (CMM) shall include all maintenance requirements (preventive maintenance, corrective maintenance, troubleshooting, servicing, testing, settings etc.) and necessary logistics details. In order to provide component maintenance criteria/tasks (at least at Operator level of Maintenance), the CMM's are either directly provided by AW to the operators or their content is transferred into AW maintenance manual (AMPI/MPM, MM/AMP, IPD/IPC).

Furthermore, in case components are used by flight crews, information for operation shall be produced. Such operative documentation (so called Operative Manuals) has to be available from Suppliers and directly provided to the Operators or content embedded in AW RFM.

AW takes the right to distribute CMM/OM to its Customers and/or to include CMM/OM contents in AW H/Cs Technical Publications without any formal request to the Supplier. In case CMM/OM shall be provided to Italian Ministry of Defence, the final delivery of the CMM/OM shall be accompanied by a Supplier Certificate of Conformity and a Supplier Declaration of Adequacy.

In case of subcontracting of maintenance activities, the repair manual in use by the sub-tier supplier shall be provided to AW prior the activity starts.

7.1 CMM Definition

CMM shall include the preventive/corrective/fault isolation maintenance requirements (specifying if they are at User or Depot level), the logistic information (e.g. shelf life, packaging and preservation/storage procedures, hazardous material etc.) while OM shall include instruction for usage including set up, normal/emergency procedures and limitations.

Appendix A defines recommended content and format for the requested Component Maintenance Manual and Operation Manual. This appendix shall be added to the Specification for the component, into a dedicated annex.

EFA is suggested as expected delivery time, at least for the first draft of the manual.

Note: For TC (such as Engines), STC (limited to subcontractors) and E/TSO only availability (and updates for the whole H/C life cycle) of existing supplier manuals (preferably in electronic format) shall be granted.

In case of deviation from CMM/OM requirements, the supplier shall inform AW Procurement Department.

7.2 CMM Approval

Once the CMM/OM are received by AW Focal Points, AW will proceed with the internal assessment evaluating the manuals content and format, improving technical or logistics information. At the end of the evaluation process, an approval letter shall be prepared by AW PSE and sent to the supplier (see annex A).

Note: For TC (such as Engines), STC (limited to subcontractors) and E/TSO the above process does not apply. If required by specific commercial requirements, an acceptance letter (without any responsibility on CMM/OM contents) may be prepared by PSE (see annex B).

7.3 CMM Updates

Supplier shall provide the CMM/OM updates to the PSE Technical Publications Services that will inform PSE relevant product line in charge of initially evaluate if:

1. technical content with implications on component preventive maintenance, performance, reliability, qualified configuration is impacted (significant modification);
2. logistic or formats requirements and/or technical aspects without implications on component preventive maintenance, performance, reliability, qualified configuration are impacted (not significant modification);the CMM/OM is related to a component that is certified with its own TC, STC, (E)TSO (AW approval not required).

8 Forms

N/A

9 Annexes/Supplements

N/A

10 Appendixes

Appendix A - CMM/OM Recommended Content and Format

Appendix A

CMM/OM Recommended Content and Format

Component Maintenance Manual and Operative Manual should be provided in editable electronic format (e.g.: pdf, etc.). Preferred layout is i.a.w. ASD1000D. ATA100, ATA2200 or equivalent are also acceptable formats. Different formats may be requested in case of specific Contractual commitments.

If the Component has been developed i.a.w. an AW Procurement Specification, the CMM/OM shall report also the AW P/N in the title page and in the Part List.

Component Maintenance Manual

- Title Page
- Record of Revisions
 - Detailed reason for each manual revision. This to allow AW to immediately identify if modifications are impacting airworthiness of the component.
- Service Bulletin List
- List of Effective Pages
- Table of Contents
- List of Illustrations
- List of Tables
- Introduction
- Description
 - including at least description, function, illustration, weight and dimensions, etc.
 - specifying if hazardous material are used and necessary precautions for usage, maintenance and PHST;
- Hazardous Material
- Schematics and Wiring Diagrams
- Testing (detailed for User and Depot level)
 - Test after repair procedures including acceptable limits for new and in service items
 - NDT
 - Indication of necessary tools, etc.
- Fault Isolation procedures (detailed for User and Depot level)
 - Fault Isolation procedures with indication of tools and consumables.
 - Indication of allowed in service limits to define corrective actions.
- Disassembly (detailed for User and Depot level)
- Repair (detailed for User and Depot level)
 - Repair by Replacement procedures (detailed for User and Depot level)
 - List of replaceable sub-components;
 - Detailed Repair by Replacement procedures including references to the required testing/servicing procedures;

- Indication of the necessary tools, consumables;
- Other Repair procedures (detailed for User and Depot level)
 - structural repair (including indication of repair limits)
 - finishing, varnishing, etc.
- Assembly (detailed for User and Depot level) Servicing (detailed for User and Depot level)
 - including cleaning, lubrication, preservation, change oil, etc.
 - indication of allowed oils/grease etc. and eventual mix-ability issues.
 - indication of necessary tools and consumables
- Weapon loading and off-loading (if applicable)
- Preventive Maintenance (detailed for User and Depot level)
 - scheduled inspections and checks (including acceptable in service limits and corrective actions in case inspection exceeds limits)
 - life limit requirements,
 - overhaul requirements;
 - indication of preventive requirements starting conditions (from manufactured date, cure date, etc.);
 - allowed tolerances applicable to scheduled/checks and overhaul;
- Packaging, Handling, Storage and Transportation requirements and procedures
 - including shelf-life (specifying starting condition, e.g.: from manufactured date, cure date, etc.) and relevant restoration procedures;
 - Including specific packaging requirement (e.g.: preservation, special containers, etc.) and packaging details (weight, dimensions, type/spec. of package, etc.);
 - Including specific storage requirement (environmental conditions and eventual inspections/checks when in storage);
 - Including specific caution for handling;
- Tools and Equipments (detailed for User and Depot level)
 - List of Tools and equipment
 - Relevant description and illustrations
 - Identification of calibration requirement with calibration period and procedure for re-calibration
 - Tools and Equipment repair procedures and indication of relevant spares/tools for tools and consumables.
- Consumables Materials
 - including list with nomenclatures and specifications (e.g. MIL, etc)
- Illustrated Parts List (including also SMRC, ICY and NATO Stock Number)
 - Indication of items replaceable at User Level

Operative Manual

- Title Page
- Record of Revisions
 - Detailed reason for each manual revision. This to allow AW to immediately identify if modifications are impacting airworthiness of the component.
- Service Bulletin List
- List of Effective Pages
- Table of Contents
- List of Illustrations
- List of Tables
- Introduction
- Description (including weight and dimensions, safety requirements)
- Controls and Indications
- Normal Operation (including set-up procedures, adjusting, SW loading, etc.)
- Emergency Operation
- Limitations