

# QRS-01

Quality Requirements for Suppliers Issue 6 – Main Document



# QRS-01

## Quality Requirements for Suppliers

Approved by: Head of Quality System

R. Pias

Issue Date: June 2020

Issue: 06

### CHANGES LOG

Issue	Approval Date	Main changes	Interested Paragraphs	Approver
04	June 2018	<p>Significantly re-written and re-formatted, all Modules</p> <p>New requirements:</p> <ul style="list-style-type: none"> <li>- REACH</li> <li>- Obsolescence</li> <li>- Shelf life and limited life</li> </ul> <p>Former QRS modules incorporated in main document: QRS-102; QRS-106; QRS-112; QRS-114; QRS-120; QRS-121</p> <p>New QRS module added: QRS-105</p> <p>Management of Design changes (minor/major)</p>	<p>All</p> <p>11.8</p> <p>17</p> <p>11.6</p> <p>QRS-115</p>	R. Pias
05	June 2019	<p>New Leonardo website and temporary revisions system</p> <p>Changes in <u>Table 1</u></p> <p>Supplier QMS requirements affecting LH approval</p> <p>EMAR certification requirements for Italian MoD</p>	<p>2</p> <p>3</p> <p>9.1.1; 9.3.2; 9.3.3</p> <p>9.1.2</p>	R. Pias

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Issue	Approval Date	Main changes	Interested Paragraphs	Approver
		Continuous improvement initiatives	9.3.2	
		Non-conformity management, escalation process, problem solving	9.5.2	
		Incorporation of temporary revisions QRS-01-1 and QRS-01-2	11.6; 19	
		Production Documentation	11.1	
		REACH Requirements	11.8	
		CoC recertification and corrections	13.1	
06	June 2020	<p>Addition of a new paragraph about language to use in communication with LH</p> <p>Added reference to the new QRS-130 Module and updated Table 1</p> <p>Updated Acronyms and abbreviations, and definitions (FOD, Modification status)</p> <p>Addition of a new paragraph about qualification of NDT and welding personnel</p> <p>More details about LH Supplier Approval process</p> <p>Added reference to the new Appendix 4 and provided examples of counterfeiting / fraudulent activities</p> <p>Management of non-conformities not related to audit activity</p> <p>Added reference to the new QRS-130 Module</p> <p>Addition of new requirement about serial number emission</p> <p>General requirements for packaging and preservation</p> <p>Reuse and recycling for repairable parts</p>	<p>1.6</p> <p>3.1</p> <p>6.1 and 6.2</p> <p>8.2 and 8.2.1</p> <p>9.2.2</p> <p>9.4</p> <p>9.5.2</p> <p>10.1</p> <p>11.4.2</p> <p>11.5</p> <p>11.5.6</p>	R. Pias

Issue	Approval Date	Main changes	Interested Paragraphs	Approver
		New paragraph about requirements for Articles to deliver to LH Customer Support and Service (reference to Appendix 3)	11.5.7	
		Restore of 75% for shelf life and limited life articles	11.6	
		Definition of FOD prevention requirements for suppliers; new paragraph	11.9	
		Update of information to include in CoC (reference to test or inspection report, modification status). Reference to DDP number deleted. Information for POA Holder in terms of CoC issue	13.1	
		Reference to EMAR Form 1 and EASA Form 1 Prototype. Updated Notes	13.2	
		Addition of new requirements for articles provided for certification tests; new paragraph	13.8	
		Reference Documents updated	18	
		Updated Annexes, Appendices and Forms	19	

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## 1 Introduction

### 1.1 Leonardo S.p.a.

Starting January 1, 2016, Leonardo S.p.a. (formerly Finmeccanica S.p.a.) changed his structure from a holding company to a single company, focused on its core business of Aerospace, Defence and Security, with the goal of becoming stronger and more competitive in an increasingly complex international scenario.

Therefore, pursuant to the Notarial Deed of Partial De-merger executed on the 16th of December 2015, from the 1st of January 2016, Leonardo S.p.a. hold any and all titles to all of the production capability, the entire workforce, the assets and, save for very few, specific exceptions that are not relevant to the Supplier, liabilities and contracts generally held by AgustaWestland S.p.A.

From that date on, by operation of law Leonardo S.p.a. step in most of the rights, obligations and Contracts of AgustaWestland S.p.A., including those entered into between AgustaWestland S.p.A. and Suppliers.

Leonardo S.p.a. is organised into Divisions, also operating through subsidiaries joint ventures and participated legal entities.

Specifically, Leonardo Helicopter Division is focused on research, design, development, production, customer support & training and marketing of an extensive range of modern helicopters for commercial, public service, surveillance, and defence purposes.

### 1.2 Addresses

#### **Leonardo S.p.a.**

Registered Office : Piazza Monte Grappa, 4 - 00195 ROME, Italy.

VAT Identification Number: (IT) 00881841001

Company number at Rome Chamber of Commerce: 00401990585

#### Leonardo Helicopter Division principal places of business:

##### **Leonardo Helicopters**

Via Giovanni Agusta, 520  
21017 Cascina Costa di Samarate  
(Varese) - Italy

##### **Leonardo MW LTD,**

a company registered in England under no. 2426132, whose registered office is at Sigma House, Christopher Martin Road, Basildon, Essex, SS14 3EL, England (hereinafter referred to as "LMW Ltd"), trading as LEONARDO HELICOPTERS with its principle place of business at Lysander Road, Yeovil, Somerset BA20 2YB - United Kingdom



**PZL-Świdnik S.A.**

Registered Office:

Al. Lotników Polskich nr 1,  
21-045 Świdnik, Poland

Place of business:

Świdnik: Aleja Lotników Polskich 1  
21-045 – Poland**AgustaWestland Philadelphia Corporation**Registered Office: CT Corporation Trust  
Centre, 1209 Orange Street – Wilmington  
– Delaware 19801 (USA)Place of business: 3050 Red Lion Road  
PA 19114 - USA

Throughout this document **Leonardo S.p.a. is referred to as “LH” to include any, subsidiaries and controlled companies within the Leonardo Helicopters Division.**

### 1.3 Preamble

**LH** is one of the world’s leading helicopters manufacturers which designs, manufactures and supports Aircrafts (commercialised under the brand of AgustaWestland) and associated Articles for various Civil and Military Customers to the maximum Airworthiness safety level.

**LH is** committed to delivering outstanding Articles to its Customers whilst maximising value for its stakeholders.

Quality is the key fundamental that allows **LH** to maintain its competitiveness in the global market and consequently **LH** is expecting from Suppliers a supportive commitment to ensure a high Quality by maintaining an effective Aerospace Quality Management System (AQMS), the cornerstone for the continuous improvement of Articles, services and processes.

**LH** requires the certification of Suppliers at the highest levels.

The absence of such certifications represents additional workload, and consequently cost. **LH will** therefore consider this aspect in the selection of Suppliers (see [Table 1](#)).

**LH will** regulate the frequency of its Surveillance activity and flow down of requirements based also on the certification held by Suppliers.

THE REQUIREMENTS SET FORTH IN THIS DOCUMENT CONSTITUTE AN INTEGRAL AND SUBSTANTIAL PART OF ANY CONTRACT MADE BY AND BETWEEN SUPPLIERS AND **LH** AND *WILL* BE CALLED OUT IN ALL **LH** CONTRACTS AGREEMENTS AND PURCHASE ORDERS (POs).

### 1.4 Right of Access

**LH shall** have the right of access to any Supplier involved with **LH** Articles, included any Sub-tier Supplier.

The Supplier *shall* provide **LH** Customers (or the Customers authorised representatives) and/or Regulatory Authorities rights of access to premises where **LH** work is being performed. Such access *shall* be used to verify that the activities being

undertaken meet the requirements of the LH contracts/orders. The Supplier *shall* provide suitable accommodation facilities and assistance.

Suppliers *shall* notify **LH** when an **LH** Customer (or Customer representative) requests access to the Supplier's facilities. In all cases, access at the Customer's *shall* be arranged by **LH** only. **LH** reserves the right to accompany any Customer during a Supplier visit.

When invoked contractually, access to the supply base *shall* be required by the in-country Government Quality Assurance Representative in accordance with STANAG4107 [Mutual Acceptance of Government Quality Assurance and Usage of Allied Quality Assurance Publications (AQAP)].

All access and Articles acceptance requirements *shall* be coordinated by **LH**.

## 1.5 Customer Communication

The Supplier *shall* appoint a specific member of the organization management, identified as the Management Representative, who *shall* be the principal link between the Supplier and **LH** Supplier Quality Assurance and Quality Controls. This *shall* be on all matters affecting the quality of Article submitted to **LH**.

All other communication required by a program *shall* be as specified and agreed by **LH** by the Contract and/or Quality Plan.

## 1.6 Language and communication

The Supplier *shall* be able to manage written and spoken communication with LH in English or by use of the local Country language as appropriate, based on circumstances and personnel involved.

The Documentation delivered to LH (production, delivery, engineering documents, alerts, letters, etc.) *shall* be in English, unless differently requested by LH or agreed with the LH contact person.

Where needed to allow understanding of Supplier's internal documentation written in other language (i.e. for explanation, verification, auditing purposes) the Supplier *shall* provide appropriate translation where requested by LH.

## 2 Scope

**LH** Quality Requirements for Suppliers are defined in this document.

The complete set of **LH** requirements that each Supplier commits to fulfil for providing Articles and/or Services are described in this main document (QRS-01 Quality Requirements for Suppliers) including its associated modules. For purpose of clarity the associated modules to this document are intended to be applied to the Supplier taking into account the Supplier category type and approval (see [Table 1](#)).

The entire set of documents is collectively identified as QRS-01 and represents the **LH** Quality Requirement for Suppliers, which can be downloaded from this link:

<https://www.leonardocompany.com/it/suppliers/supplier-portal/helicopters/quality-requirements-for-suppliers>

The QRS-01 main document (QRS-01 General Requirements for Suppliers) and each module *shall* be applied at their last level of revision. Whenever “QRS-01” is mentioned, it is intended not only the main document but also all the associated “QRS-xxx” Modules.

The QRS-01 includes a system of temporary revisions, which are also published in the webpage above.

When the QRS-01 is requested by a Purchase Order, it *shall* be applied, together with all the associated Modules, at their last revision. The Supplier commits to fulfil and flow-down QRS-01 to its Sub-tier Suppliers, as applicable according to the category and type and activity of the Supplier and its approval (see [Table 1](#)).

**The QRS-01 requirements are in addition (not alternative) to EN/AS/JISQ9100 series and complementary to contractual, applicable law and regulatory requirements.**

The QRS-01 also contains:

- Supplier requirements for **LH** recognition of certification documentation issued by an accredited Certification Body (CB) in accordance with International Aerospace Quality Group (IAQG) requirements.
- **LH** expectation for all of its Suppliers today and in the future.

Allowance to deviate from the QRS-01 is permitted at the sole discretion of **LH** and *will* have to be agreed with **LH** Supplier Quality Assurance (SQA).

### 3 Applicability

This document is applicable to all activities allocated to all the types of Suppliers described in the following [Table 1](#) in accordance with a **LH** Contract/Purchase Order and/or any other associated documentation and *shall* be flowed-down to all Sub-tier Suppliers involved in fulfilment of the Contract/Purchase Order.

[Table 1](#) describes:

- the minimum certification criteria that *shall* be held by the Supplier
- the correlation between Statement of Approval category granted by **LH** and activities performed by the different type of Suppliers
- the correlation between the QRS-01 Modules and activities performed by the different type of Suppliers

The QRS-01 requirements *shall* apply in addition to any PO/Contract requirements; in case of conflict the latter shall prevail.

### **3.1 QRS Modules – General Descriptions**

Here is a general description of the QRS modules of [Table 1](#)

#### **3.1.1 Digital Manufacturing – DMFG (QRS-100)**

Requirements for Suppliers using Digital Design data as input, to Manufacture and certify Articles

#### **3.1.2 First Article Inspection (QRS-101)**

Requirements for First Article Inspection

#### **3.1.3 Subcontracted parts and GSE, Stockists of Raw Material, Distributors of Parts (QRS-103)**

Requirements for Supplier category and Articles specified above

#### **3.1.4 Special Processes (QRS-104)**

Supplier Requirements for qualification, requalification, qualification renewal, control and application of Special Processes

#### **3.1.5 Management of LH Equipments and Tools (QRS-105)**

Requirements for management of equipment and tools owned by LH in use by Suppliers

#### **3.1.6 Non-Conforming Articles including Concessions, Deviation Permits, Scrap Parts, Escapes/Quality Alerts, Service Bulletins (QRS-107)**

Requirements and Procedures to manage any Non-Conforming Articles, before the delivery, after delivery and in service

#### **3.1.7 Supplier Quality Plans (QRS-108)**

Supplier Quality Plans (Requirements, preparation, approval, contents)

#### **3.1.8 DO-PO Arrangements (QRS-110)**

Instructions for Agreement between Suppliers approved as Production Organisation and LH Design Organisation, to certify the supplied Articles (EASA Form 1)

#### **3.1.9 Requirements for Design & Development Suppliers (QRS-115)**

Procedure for LH Suppliers for Design and Development (all systems)

#### **3.1.10 Software Development, Quality Requirements (QRS-116)**

Procedure for LH Suppliers for Design and Development (specific requirements for Software)

### **3.1.11 Complex Electronic Hardware, Quality Requirements (QRS-117)**

Procedure for LH Suppliers for Design and Development (specific requirements for Complex Hardware)

### **3.1.12 Requirements for Laboratories and Manufacturers of Non-Airborne Equipment for LH Engineering (QRS-118)**

### **3.1.13 Maintenance / Operating Manuals (QRS-122)**

Requirements for Suppliers to specify how to provide Instructions for Continuous Airworthiness and information for operation of their components

### **3.1.14 Flow-down of LH Requirements to Sub-Tier Suppliers (QRS-130)**

Collection of all **LH** requirements to be flow-down by the Suppliers to their own Suppliers (Sub-Tiers) involved with **LH** Articles

		Supplier Activity												
		Engineering Design, Development and Manufacture	Supplier responsible to develop software (airborne) or complex Electronic Hardware	Repaired / Maintained / Overhauled articles	Manufacturers' articles stored and re-sold	Commercial office (only commercial relationship with LH)	Testing, Calibrations and measuring equipment	Training Services	Technical, logistic, operational support and other services (including technical publications)	Special Processes	Manufacturer of Raw Materials or standard parts in accordance with international standards	Production of Equipment items, assemblies, sub-assemblies, standard parts developed by LH, Offloads	Non-airborne articles (test benches, tooling, etc.) that can impact airworthiness	COTS (not including TSO/ETSO)
Minimum Certification Required (EN/AS/ISO etc.) > per Supplier type / activity		9100 with "Design and Development"	9100 including compliance to 91195	9110	9120	N/A	17025	9001	9001	Nadcap	9100	9100	9100	9001
Supplier Type / Statement of Approval category	Manufacturer	X	X							X	X		X	X
	Subcontractor									X		X	X	
	Offload									X		X		
	Maintenance			X									X	
	Stockist/Distributor				X								X	X
	Service Provider	X						X	X					
	Laboratory						X							
	Agent					X								
QRS-01 Modules	QRS-100 Digital Manufacturing (DMFG)											X		
	QRS-101 First Article Inspection	X										X		
	QRS-103 Quality Requirements for Subcontracted Parts and GSE, Stockists of Raw Material, Distributors of Parts				X					X		X	X	
	QRS-104 Special Processes	X								X				
	QRS-105 Management of LH Equipments and Tools	X		X								X	X	
	QRS-107 Management of Non-Conforming Articles	X	X	X	X		X			X	X	X	X	X
	QRS-108 Supplier Quality Plans	X	X	X	X	X	X	X	X	X	X	X	X	X
	QRS-110 DO-PO Arrangement	X										X		
	QRS-115 Requirements for Design & Development Suppliers	X	X											
	QRS-116 Software Development, Quality Requirements for Suppliers		X											
	QRS-117 Complex Electronic Hardware, Quality Requirements for Suppliers		X											
	QRS-118 Requirements for Laboratories and Manufacturers of Non-Airborne Equipment for LH Engineering						X						X	
	QRS-122 Supplier Component Maintenance / Operating Manuals management	X		X										
	QRS-130 Flow-down of LH Requirements to Sub-Tier Suppliers	X						X	X	X	X	X	X	X

Table 1

## 4 Effective date

Issue date

## 5 Ownership

LH Supplier Quality Assurance (SQA)

## 6 Acronyms, definitions and abbreviations

### 6.1 Acronyms and abbreviations

AQAP	Allied Quality Assurance Publications
AQMS	Aerospace Quality Management System
ATP	Acceptance Test Procedure
ATR	Acceptance Test Report
CB	Certification Body
CFR	Code of Federal Regulation
CoC	Certificate of Conformity
COTS	Commercial Off the Shelf
DDP	Declaration of Design and Performance
DO	Design Organisation
DOA	Design Organisation Approval
DoD	Department of Defence
DO-PO	DOA-POA Arrangement
EASA	European Aviation Safety Agency
EASA Form One	European Aviation Safety Agency – Release Certificate
ESD	Electrostatic Sensitive Device
FAA	Federal Aviation Administration
FAA Form 8130-3	Federal Aviation Administration – Release Certificate
FAI	First Article Inspection
FAIR	First Article Inspection Report
FO	Foreign Object
FOD	Foreign Object Debris
FOD	Foreign Object Damage
GSE	Ground Support Equipment
IAQG	International Aerospace Quality Group
IAQG-OASIS	International Aerospace Quality Group – On line Aerospace Supplier Information System ( <a href="http://www.iaqg-sae.org/oasis">www.iaqg-sae.org/oasis</a> )
ISO	International Standardization Organisation
LH	Leonardo Helicopters
LOP	Life Of Product
MIR	Manufacturing Inspection Report
MAOS	Maintenance Approved Organization Scheme (UK MoD)
MO	Maintenance Organization
MOD	Ministry of Defence
NAA	National Airworthiness Authority

NCR	Non Conformity Report
NDA	Non-Disclosure Agreement
OEM	Original Equipment Manufacturer
OQD	On Quality Delivery
OTD	On Time Delivery
PMA	Parts Manufacturer Approval
P/N	Part Number
PO	Purchase Order
POA	Production Organisation Approval
QMS	Quality Management System
QN	Quality Notification
RFVA	Request For Variation Approval
SCI	Software Configuration Index
SQA	Supplier Quality Assurance
STC	Supplemental Type Certificate
SW	Software
TC	Type Certificate
TCH	Type Certificate Holder
TSD	Technical Specification for Delivery (also STF - Specifica)
TSO	Technical Standard Order
VDD	Version Description Document

## 6.2 Definitions

For the purposes of this document, the following definitions shall apply.

**Agreement:** any agreement including but not limited to Design Manufacturing Agreement, Long Term Agreement, Framework Agreement, Service Centre Agreement, Repair Centre Agreement, entered into by LH with a Supplier for the provision of Articles.

**Article(s):** raw material, process, tool, gauge, equipment, detail part, sub-assembly, assembly, avionics equipment, software, CAD/CAM/CATIA media (including Digital Data Definition), documentation, aircraft, airborne/non-airborne equipment and service that *may* be provided.

**Batch Number:** unique number allocated to a definite quantity of items produced to the same design at one time, under conditions that are considered uniform.

**Buyer:** any person that issues a Purchase Order on behalf of **LH**.

**Catalogue Part/Article:** proprietary part specified in the Manufacturer's own publication which contains sufficient technical data for the user to select and confirm that the part/Article satisfies the design intent and end user application.

**Commercial Off the Shelf (COTS):** Article made and available for sale, lease, or license to the general public.



**Contract:** any Purchase Order issued by the Buyer and accepted by the Supplier, independently of the format (paper or electronic), for the provision of Articles, and/or services.

**Control Plan for Deliveries:** A document defining the control operations (such as inspections, measurements, tests) that shall be performed under **LH** direct responsibility during the production process and/or at the receipt of material.

**Counterfeit Article:** an unauthorized copy, imitation, substitute or modified Article which is knowingly misrepresented as a specified genuine Article of a non-original or authorized manufacturer/provider.

**Critical Part:** those Articles (e.g. functions, parts, software, characteristics, processes) having significant effect on the provision and use of the products and services; including safety, performance, form, fit, function, producibility, service of life, etc.; that require specific actions to ensure they are adequately managed.

Examples of critical items include safety critical items, fracture critical items, mission critical items, key characteristics, etc. Critical parts are classified for each product line as per specific LH document. *Critical Parts include Vital Parts and Flight Safety Parts.* With regards to safety, a critical part is a part, the failure of which could have a catastrophic effect upon the rotorcraft, and for which critical characteristics have been identified which must be controlled to ensure the required level of integrity.

**Design Organisation:** Organisation designing products or changes to products

**Foreign Object:** An alien substance or article (e.g., tools, consumables, hardware, product protective devices, personal items, product process debris, operations debris and environmental debris) that could potentially enter and/or migrate into/on the product or system becoming FOD and potentially cause FOD, if not removed and controlled.

**Foreign Object Debris:** Any FO that has entered and/or migrated into/on the product or system, and could potentially cause FOD, if not removed and controlled.

**Foreign Object Damage:** Any damage attributed to FOD that can be expressed in physical or economic terms, which could potentially degrade the product or system's required safety and/or performance characteristics.

**Life of Product:** Lifetime until the retirement of the product type

**Maintenance Organisation:** Those organisations maintaining aircraft or aircraft products.

**Modification Status:** a code structure, not included in the P/N, defined to guarantee the traceability of minor changes and to control the configuration of parts, equipment and sub components that shall be installed, certified or qualified on LH products (see QRS-115 for details).

The use of physical labelling to indicate status is allowed (E.g. Mod Strike labels/plates)

**Product:** aircraft, aircraft engine, or propeller

**Production Organisation:** Those organisations producing products or changes to products.

**Qualified Part:** Article for which the ability to fulfil specified requirements is demonstrated by documentation.

**Record:** Document or data that provide objective evidence of activities performed or results achieved.

**Serial Number:** unique number or alpha-numeric code that is one of a series, used to provide identification of an Article to enable traceability.

**Standard Part:** part manufactured in complete compliance with a Government or an established industry specification.

**Supplier:** company (according to the different types and categories) that provides an Article or a service.

**Sub-Tier Suppliers (also simply Sub-Tiers):** For the purpose of this procedure, Sub-Tiers are considered the Suppliers of LH Suppliers.

The Suppliers Categories granted per LH per Statement of Approval are listed below:

**Agent:** LH Supplier that represents a manufacturer and/or stockist (distributor) and arranges for their Article to be distributed.

For these Suppliers (Agents) only a Scope of Approval (and not a Statement of Approval) *will* be issued.

**Laboratory:** LH Supplier that is used as an external testing laboratory

**Maintenance:** LH Supplier (and/or the Design Responsible Company's) that repairs/maintains/overhauls Articles.

**Manufacturer:**

LH Supplier that:

- Designs and manufactures Article for which they provide a specialist design, development, validation, **manufacturing capability** against LH requirement specifications or Source Control Drawings **for Design**.  
**Remark:** suppliers performing these activities are also identified by the Regulatory Agencies as *Subcontractors of the Design Organisations (Subcontractors of Design and Development activities)*
- **Manufactures articles for which they provide proprietary manufacturing technologies, against LH Source Control Drawings for Manufacturing**
- Designs and manufactures Article for which they provide the proprietary rights (E/TSO, COTS, STC, PMA, TC Holder)
- Manufactures raw materials (metallic and non-metallic).

**Offload:** LH Supplier that performs/completes single phases of a manufacturing plan originally prepared for LH departments or as part of a planned LH manufacturing process.

**Remark:** The Supplier may be requested to operate according with a LH work instruction or to perform activity according to their own instructions/techniques (e.g. NDT/Special Processes), as directed by LH and according with the approvals granted by LH.

**Stockist/Distributor:** LH Supplier that stores and re-sells a manufacturers' Article and manages its supply chain for the quality aspect.

**Service Provider:** LH Supplier that provides services that contribute to aspects of airworthiness which can include: Testing, calibration and measurement services, Engineering consultancy, Manufacturing engineering processes (e.g. machine tool programming), Technical publications, Training, Logistics and distribution

**Subcontractor:**

LH Supplier that:

Manufactures, tests and/or processes Article to drawings, 3D models, standards and/or process specifications for which they are not design responsible. The design requirements are provided by LH when LH is directly responsible for the design, or when LH have been granted manufacturing rights by another design responsible Organisation (e.g. Bell, Boeing, Airbus Helicopters, etc.).

**Remarks:**

- Subcontractors can procure raw materials only from LH approved sources, unless otherwise authorized
- Forging and Casting Suppliers are typically included in this category.

**Traceable parts:** Those parts for which a full traceability to the source is required.

*For general definitions, please refer to ISO 9000 and to specific LH documents where applicable.*

## 7 Means of Understanding

The use of **shall**, **should**, **must**, **will** and **may** within this document and within all the other modules/procedures 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 denote 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 this document and all the other associated QRS-XXX Modules.

## 8 Resources

### 8.1 General

The Supplier *shall* determine and provide resources needed for the establishment, implementation, maintenance and continual improvement of the QMS. The Supplier *shall* consider:

- The capabilities of, and constraints on, existing internal resources;
- What needs to be obtained from external providers

### 8.2 People

The Supplier *shall* determine and provide the persons necessary for the effective implementation of its quality management system and for the operation and control of its processes.

These persons *shall* be competent on the basis of education, training, experience.

#### 8.2.1 Personnel competence - NDT (Non Destructive Testing) and welding

##### Personnel performing NDT

EN4179 or equivalent NAS410 *shall* be applied as minimum requirements for NDT personnel, unless otherwise specified by applicable engineering requirements and/or purchase order. These requirements are also applicable to Sub-Tiers.

The Supplier's responsible NDT Level 3 *shall* be identified and notified to the LH Corporate NDT Responsible Level 3. Similarly, the Sub-Tier's responsible NDT Level 3 *shall* be identified and notified to the LH Corporate NDT Responsible Level 3 by the Supplier.

More detailed instructions are reported in QRS-01 website.

##### Personnel performing Welding

Welders *shall* be approved and maintained according to AWS.D.17.1 unless otherwise specified by applicable engineering requirements and/or purchase order.

### 8.3 Infrastructure

The Supplier *shall* determine, provide, and maintain the infrastructure necessary for the operation of its processes and to achieve conformity of products and services.

Infrastructure can include:

- buildings and associated utilities;
- equipment, including hardware and software;
- transportation resources;
- information and communication technology.

### 8.4 Environment

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

## 9 Supplier Selection, Approval, Responsibility and Control

### 9.1 Selection

#### 9.1.1 Quality Management System and Aerospace Approval

All the Suppliers *shall* have a Quality Management System compliant with [Table 1](#) as applicable for their Statement of Approval category. When applicable, the QMS shall be certified by a Certification Body accredited by IAQG Industry Controlled Other Party (ICOP) Aerospace Sector Certification Scheme operating in accordance with EN/AS/SJAC 9104-001, "Requirements for Aerospace Quality Management System Certification/Registrations Programs".

9100 series certification *shall* be registered in the IAQG OASIS Database and the **Supplier** *shall* grant to **LH** the access, upon request, to assessment results data contained within the IAQG On-Line Aerospace Supplier Information System (OASIS). ISO9001 certification and results of ISO9001 assessments shall be provided on request.

The Supplier *shall* ensure to:

- maintain objective evidence on file at its facility, in accordance with the quality record retention requirement contractually specified; of the certification which includes:
  - the accredited AQMS certificate(s) of registration.
  - the audit reports, including all information pertaining to the audit results in accordance with the applicable certification/registration scheme.
  - copies of all CB finding(s), objective evidence of acceptance of corrective action, and closure of the finding(s).
- notify **LH** in writing when its certification is suspended or withdrawn or the accredited status of the CB utilised has been withdrawn

**LH** reserves the right to:

- Make final determination regarding compliance to **LH** requirements.
- Change **LH** approval status of Supplier based on its contract compliance.
- Terminate Supplier's **LH** approval status, regardless of previous or current recognition and regardless of Seller's certification status.
- Conduct assessment of Supplier Quality Management System and issue of any **LH** identified quality system findings.

**LH** reserves the right to accept Suppliers who do not meet the minimum requirements in [Table 1](#) **in exceptional circumstances only**.

In this case:

- **LH** reserves the right to conduct a full or partial assessment, on a case by case basis, of the Supplier's Quality Management System.
- Supplier *shall* issue, at its own expense, a Quality Plan to cover the delta between the certification it holds and the QRS-01 requirements, to be submitted for approval to **LH** SQA.
- Supplier *shall* ensure the Sub-Tier Supplier's Quality Management System is satisfactory by performing a risk assessment/audit.

**LH** Article requirements *shall* be defined in the Contract/PO, this document and any other documents referred to in the Contract/PO.

Depending on Supplier Approval Held, all the requirements of this document *shall* apply and *may* be checked and monitored for compliance by **LH**.

**LH** reserves the right to perform both pre-qualification and post-qualification surveys/audits of supplier facility for the purpose of determining capability and compliance with LH Quality Assurance requirements.

### 9.1.2 Airworthiness Regulation Approval

#### Production

Suppliers, especially for critical parts and equipment, are expected to have a Production Organization system in accordance with one of the following:

- EASA Part 21G
- PMA
- CCAR 561
- Military Airworthiness Approval
- Equivalent recognized (e.g. bi-lateral agreement with NAA)

Remark: Suppliers working on new military programs for Italian MoD shall obtain the EMAR 21 G certification for production.

Compliance *shall* be demonstrated and provided to **LH** by means of an official approval issued by the relevant Regulatory Body. Arrangements *shall* be implemented between **LH** (TC holder) and interested **Suppliers**.

Deviation from the above requirements *shall* be considered in **an exceptional base and will be dealt with on a case by case base**.

Suppliers of Vital Parts *shall* be approved by LH to WHPS700.

## Maintenance

**OEM** and other Suppliers performing maintenance activities *shall* have a Maintenance Organization system approval in accordance with one (of more) of the following:

- EASA Part 145
- FAA CFR 14 Part 145
- FAA CFR 14 Part 43
- CCAR 573
- Equivalent recognized (e.g. bi-lateral agreement with NAA)
- MAOS

The Scope of the Approval shall be applicable to the maintenance activity the OEM and other suppliers are contracted to perform at the specified location.

Remark: Suppliers working on military programs for Italian MoD *shall* obtain the EMAR 145 certification. Where the **OEM** or Suppliers holds an EASA Part 145 and/or an FAA CFR 14 Part 145, the **OEM** or the Supplier *shall* apply also for the Canadian CAR 573.

Compliance *shall* be demonstrated and provided to **LH** by means of an official approval.

When requested by **LH**, the **OEM** or Supplier *shall* be requested to have a dual/triple release certification capability (FAA/EASA Part 145/TCAA).

## 9.2 Approval

### 9.2.1 Supplier Prequalification and qualification

For suppliers directly contracted to LH, the Supplier prequalification and qualification process has the aim to evaluate, verify and monitor the ethical, legal, economic and financial reliability of Suppliers, together with the evaluation of their technical, organizational, managerial skill and their dependency by LH.

In addition, for suppliers directly contracted to LH, the qualification process of the Leonardo Helicopters Division ensures compliance with the requirements relating to the environment, health and safety (including requirements by applicable laws).

To start the prequalification process, the potential directly contracted supplier shall register itself through the Leonardo Website. The potential Supplier *must* review and agree to the Leonardo Ethic Code, Organizational Model 231, Leonardo Anti-Corruption Code, Privacy Policy, Terms and Conditions on the use of the Leonardo Procurement Portal.

Suppliers will be notified the outcome of the pre-qualification and qualification process.

### 9.2.2 Supplier SQA Approval

LH approval process may include:

- A potential supplier questionnaire
- When deemed necessary, an on-site assessment and any follow up actions
- A certificate /letter and an addition to the LH approved Supplier database
- Ongoing performance monitors and reviews
- On-site meeting and product/process related audits
- **For Raw Material Manufacturers, a request to provide samples or independent test reports.**

### 9.2.3 Supplier Classification per LH Statement of Approval

LH classifies its Suppliers into different specific categories. This helps to maintain records that relate to the Supplier base and target the specific requirements to those Suppliers that LH need to use.

The class of approval of a supplier can be as follow (for details see "[Definitions](#)"):

- Manufacturer
- Subcontractor
- Offload
- Stockist/Distributor
- Maintenance
- Agent
- Laboratory
- Service Provider

Once a Supplier is approved by LH, approval is considered valid unless a Supplier:

- Fails to act in accordance with their Scope of Approval
- Fails to achieve a satisfactory performance level
- Does not receive a PO for 4 years or, in the case of a Sub-Tier, has not worked with LH Articles for 4 years.

### 9.2.4 Suppliers Approved by a Civil Authority

Suppliers manufacturing, overhauling and repairing articles, components or subassemblies in accordance with TC or STC holder and having a civil authority



approval (EASA Part 21G, EASA Part 145, CFR 14 Part 21, PMA, CFR 14 Part 145, CCAR 561, CCAR 571, etc.) are operating under the supervision of their NAA and they *shall* assure that all their activities are recorded in their Capability List/limitation records.

Through the issuing of appropriate Agreements with **LH** (e.g., DO-PO Arrangements, PMA's, etc.) they *shall* deliver any part included in civil programs with an airworthiness tag (EASA Form 1, FAA TAG 8130-3, etc.).

## 9.3 Responsibility

### 9.3.1 Contract Review

During Contract Review, the Supplier *shall* check their Scope of Approval, issued by **LH**, to ensure it is correct for the Contract/Purchase Order. Any misalignment between the received PO and the current Statement of Approval *shall* be notified to **LH SQA** and **LH Procurement**.

It is responsibility of the Supplier to check regularly the **LH Website** (at least once a month or before acceptance of any Purchase Order) to ensure they are using the latest issue of **LH** published standards, specifications and documentations.

### 9.3.2 Changes affecting LH approval

A **Supplier** *shall* send timely written notification to **LH SQA** in case of changes that can affect the approvals granted by **LH**, such as (but not limited to):

- Organization
  - Relocation to new premises
  - Change in the industrial organisation (partnership, Suppliers, design work sharing)
  - Change in the parts of the organisation that contribute directly to the airworthiness or environmental protection.
- Responsibilities
  - Change of the Accountable Manager, General Manager, Quality Manager and any other management staff (e.g.: Program/Project Manager, Manufacturing Manager, Technical Director).
  - New distribution of responsibilities affecting airworthiness or environmental protection
  - For organisations designing minor changes to type design or minor repairs to Articles
- Procedures (ref. QRS-115). Change to the procedures related to:
  - the classification of changes and repairs as 'major' or 'minor'
  - the treatment of major changes and major repairs
  - the approval of the design of minor changes and minor repairs
  - continued airworthiness
  - the configuration control, when airworthiness or environmental protection is affected

- the acceptability of design tasks undertaken by partners or sub-contractors
- Resources
  - Substantial reduction in number and/or experience of staff
- Policy changes which affect their conditions of approval
- Change in the conditions of approval given by National, International Bodies and/or Regulatory Authorities.

The notifications of the changes *shall* be done prior to their implementation by means of the following mailbox:

[AWSupplierQualityAssurance.AW@leonardocompany.com](mailto:AWSupplierQualityAssurance.AW@leonardocompany.com)

The submitted changes *will* be assessed by **LH** to evaluate their impact on the approval status of the Supplier.

### 9.3.3 Supplier Commitment

Suppliers *shall* produce and deliver safe and reliable Articles that meet the Purchase Order/Contract and Agreement requirements.

Suppliers shall inform **LH** for any non-conforming Article in accordance with QRS-107 (including Quality Alerts and Service Bulletins).

Continuous improvement initiatives *shall* be applied covering Manufacturing, Business and Relationship Management.

**LH may accept non-conforming Article(s) in exceptional circumstances only with permission from Quality Control Department.**

Except for repair orders, Supplier *shall* ensure that all Articles and Parts are unused.

Procedures *shall* exist for the Repair and Overhaul of Articles.

Supplier *shall* ensure that Government or Operator surplus Article(s) are not supplied without a written SQA Scope of Approval by **LH**.

## 9.4 Prevention of Counterfeit Articles

The Supplier *shall* plan, implement, and control processes, appropriate to the organization and the product, for the prevention of counterfeit or suspect counterfeit part/Article use and their inclusion in product(s) delivered to **LH**.

Examples of counterfeiting or fraudulent activities include, but are not limited to: used components represented as new; parts from unapproved manufacturers represented as manufactured by the approved source; falsification of test reports and certificates.

The applicability field includes, without being exhaustive: Electrical, Electronic, and Electromechanical (EEE) Parts; Mechanical parts; adhesives; sealants; Raw Materials; COTS; Services and Processes (e.g. NDT, Surface/Heat Treatment, Calibration, Laboratory testing); Equipment and tools etc.

Counterfeit Article prevention processes *shall* consider:

- training of appropriate persons in the awareness and prevention of counterfeit parts/Articles;
- application of a parts/Articles obsolescence monitoring program;
- controls for acquiring externally provided product from original or authorized manufacturers, authorized distributors, or other approved sources;
- requirements for assuring traceability of parts/Articles and components to their original or authorized manufacturers;
- verification and test methodologies to detect counterfeit parts/Articles;
- monitoring of counterfeit parts/Articles reporting from external sources;

When suspected or counterfeit parts/Articles are detected, the Supplier *shall* quarantine the Articles and promptly report to **LH**.

When suspected or counterfeit parts/Articles are detected after delivery, the Supplier *shall* provide post-delivery support to **LH** through dedicated Quality Alerts and management of delivered parts/Articles.

For Electrical, Electronic and Electromechanical (EEE) Parts, the Appendix 4 of QRS-01 is also applicable.

The implementation of IAQG-SCMH - *Counterfeit Part Prevention* is recommended.

## 9.5 Control

### 9.5.1 Surveillance

**Suppliers** *will* be subject to periodical audits that can be performed by **LH** and other parties involved (e.g. NAA, MOD, customers, etc.).

**LH** reserves the rights to outsource specific surveillance activities to a Third Party Organization that *will* be legally bound to **LH** through a Non-Disclosure Agreement (NDA). In the event **LH** outsources the surveillance activities, a written communication *will* be submitted in advance to the audited **Supplier**.

The **Supplier** *will* be notified by **LH** before the performance of audit activities.

The duration of the audit (**LH**, NAA, MOD, customers, etc.) is established by **LH** in accordance with the specific needs and it *will* be at least one day.

### 9.5.2 Non-conformities management and Problem Solving techniques

Where a Non Conformity Report (NCR) is raised (see Annex QRS-01\_F01) as a result of an audit finding **or outside the audit in the event of clear violation of requirements**, the following non-conformance categories and timescales are used:

Category of the Finding	Finding	Root Cause	Containment Action definition/ implementation	Corrective/ Preventive Action Definition	Corrective/ Preventive Action Closure
<b>Level 1</b>	Evident and objective non-conformity with respect to the requirements of the applicable standards and/or procedures that <i>will</i> have a potential impact on a safety and/or contractual requirement; corrective and containment action <i>shall</i> always be required.	Maximum 3 calendar days	Maximum 3 calendar days	Maximum 3 calendar days	Maximum 15 calendar days
<b>Level 2</b>	Evident and objective non-conformity with respect to the requirements of the applicable standards and/or procedures that is not classified as Level 1; corrective and containment action <i>shall</i> always be required.	Maximum 21 calendar days	Maximum 21 calendar days	Maximum 21 calendar days	Maximum 75 calendar days
<b>Level 3</b>	Isolated non-conformity with respect to the requirements of the applicable standards and/or procedures that is not classified in the preceding Levels; only containment action <i>shall</i> be required.	Maximum 21 calendar days	Maximum 21 calendar days	N/A	N/A
<b>Preventive Action Only</b>	Event that indicates a possible failure of the AQMS and that can be subject to future NC; preventive action <i>shall</i> always be required.	N/A	N/A	Maximum 21 calendar days	Maximum 75 calendar days

The use of **Problem Solving** techniques is **required**.

The “5 why” method is the standard proposed for identification of root causes, and other supplemental methods should be considered, or a combination of them as requested, depending on nature, extension and severity of the problem itself. Examples are: 8D; fishbone (Ishikawa) charts; Pareto charts; lean 6 sigma tools.

The combined use of **Risk Assessment** techniques and, more in general, a **Risk Based approach** is also recommended, especially for high levels of complexity.

*Note 1: Supplier is encouraged to introduce human factor courses for his personnel and consider human factors in their procedures in order to minimize findings that may be generated by human errors*

*Note 2: A number of Level 2 non-conformances against one requirement (e.g. similar non-conformances associated to different sites or different departments / functions / processes within a single site) can represent a total breakdown of the systems and can be considered a Level 1 non-conformance.*

*Note 3: in case the root cause analysis for a Level 3 request for corrective action demonstrates a lack in the system, a corrective action is requested.*

In case of a Level 1 non-conformance, the Supplier *shall* provide LH SQA a technical report identifying, through structured root cause analysis, all causes that have or *may* have generated or contributed to the undesirable condition, situation, non-conformance or failure, then select the most critical ones that require to be addressed.

**Regardless the level of non-conformance issued, in case of significant non-conformances having an impact on the LH production in terms of quality and OTD, LH *will* issue a feedback in the IAQG-OASIS against the CB of the Supplier and, for information, to the Supplier concerned.**

LH SQA *will* ensure that the appropriate course of actions is implemented.

Actions to be considered:

- Suspension of the delivery to LH;
- Suspension or Withdrawal of the LH Supplier Approval
- Reduced timescales for Supplier response to NCR issued by LH
- Containment action
- Corrective action
- Preventive action.

**Where a Supplier does not respond to the request for corrective action in the planned times, an “escalation process” *will* be initiated by LH SQA which *will* include the issue of a feedback in the IAQG-OASIS against the CB of the Supplier and, for information, to the Supplier concerned.**

Requests to extend corrective action response times, will be supported by evidence, which will be evaluated by the auditor in charge.

### 9.5.3 Escalation

It is a supplier responsibility to monitor timing for the definition and implementation of request for corrective action.

Where a Supplier does not respond to the request for corrective action in the planned times, and “escalation process” *will* be initiated from Leonardo Helicopters to the Supplier Top Management directly and/or through OASIS feedback or Supplier National Aviation Authority and may lead to contractual consequences.

### 9.5.4 Suspension of LH Approval

If surveillance audit corrective action and other actions taken to address risks do not solve a persistent critical situation such as:

- production process that does not guarantee repetitiveness (realization of conforming parts constantly in time);
- manufactured parts not traceable
- incorrect measurements made
- increase of defects on LH critical parts before delivery to the Customer

- repetitive reports from Customers of defects on critical parts / non-critical parts

**LH** may suspend the approval granted to the interested **Supplier**.

The **Supplier** shall submit a detailed plan of improvement actions and provide evidence of its implementation and effectiveness.

The suspension period is defined by **LH** on a case by case basis.

### 9.5.5 Withdrawal of LH Approval

Approved **Suppliers** without any **LH** Contracts / Purchase Orders in the last four consecutive years will have their approval withdrawn and shall be therefore considered as new **Supplier** in case of new business activities with **LH**.

Other circumstances eligible for a possible **LH** approval withdrawal are (not limited to):

- Persistent poor quality and delivery performance;
- Conscious disregard of the **LH** requirements expressed in this document or deviation without prior agreement with **LH**;
- Fraudulent or harmful behaviour towards **LH**;
- Loss of third Other Party accreditation, MoD certification, NAA certification upon which the **LH** approval was based;
- Lack of ethical or safety conscious behaviour by the Supplier;
- Any particular behaviour that is considered inconsistent with **LH** policy expressed in this document and in **LH** rules.

## 10 Purchasing

### 10.1 Purchasing Process, flow-down to Sub-Tiers and Control

The Supplier is responsible for all Sub-Tier Suppliers activities related to the Article they produce for **LH**. A Quality Plan shall be provided when required according with QRS-108

**LH** requirements shall be flown-down to, understood and implemented by Sub-Tier Suppliers prior to commencing any work. The **LH** Supplier shall monitor the correct implementation of such requirements by its Suppliers.

| [See QRS-130 for additional details.](#)

**LH** reserves the right to witness audits performed by Suppliers at Sub-Tier premises

### 10.2 Purchasing of Raw Materials per Supplier Classification

**Manufacturers can:**

- procure raw material and parts/components from their approved suppliers.

**Subcontractors shall:**

- Procure parts/components and raw material from either:
  - Approved **LH** Stockist/Distributor for raw materials (Stockist/Distributor and original manufacturer of the raw material *shall* be both approved)
  - Approved **LH** Manufacturer of raw material
  - Approved **LH** Stockist/Distributors for international or industry standard parts
  - Approved suppliers as defined into **LH** standards
- Use only **LH** approved Suppliers for all the offload activities to be carried out unless otherwise agreed and identified in a Quality Plan/Side Agreement Letter.

Note: alternative or equivalent parts *shall* not be sourced without prior formal **LH** approval. When **LH** is not the Design Authority for the Article (such as COTS, TSO, STC, TCH, etc.), the Design Authority approved Suppliers *shall* be used.

See QRS-103 for additional details.

**Stockist/Distributors *shall*:**

- Only purchase raw material from **LH** approved suppliers, when full traceability can be demonstrated back to an **LH** approved manufacturer.
- Ensure the Article is checked against the specifications on receipt and records are kept.
- Ensure alternative parts are not delivered without prior written approval from **LH**
- Ensure the OEM's CoC or Airworthiness Certificate is attached and referred to into the Stockist CoC

**Requirements for Suppliers of GSE:**

- Raw Material *shall* be as required by drawing, and *may* be procured from commercial sources. A CoC is required.
- Alternative materials are only permitted when defined by **LH** documentation and pre-authorized by the applicable Material Laboratory
- Procure standard parts, adhesives and fasteners from sources approved by the Supplier and *shall* be supported with a CoC.
- Proof load testing of GSE is to be completed by companies approved to National and International Standards for the applicable testing. A "Certificate of Test and Examination" in accordance with Governments statutes *shall* be supplied to certify each Article.

For Suppliers of consumable material for the plants and laboratory, no specific approval *will* be performed by SQA.

## 11 Production and Service Provision

### 11.1 Production Documentation

Each work instruction document (e.g. traveller, batch card, planning, and operation list) is to be kept with the Article at all times.

The document *shall* have, at least, provision for:

- A unique batch number (where applicable), part number, Article description and quantity
- Drawing number, issue/version/revision
- Manufacturing/process layout issue/revision status
- List of individual operations
- Authorised inspection stamp/signature, quantity accepted and rejected and date, at each operation
- Evidence that the material used is in accordance with the drawing(s)
- Inspection operations prior to, and after subcontracted operations
- The material specification, identity (i.e. cast number, heat number or unique identity traceable to the release note number)
- Operations for temporary protection, to be defined at interim stages and for transit to and from Sub-Tier Suppliers

*Note: LH shall approve alternative materials prior to starting manufacture (ref. QRS-108).*

and when applicable:

- Class/category of Article e.g. Vital Part, Category F, Flight Safety Part, Critical Part, class 1 etc.
- Article serial number(s)
- Critical operations and Special Processes, which *shall* be highlighted
- The specification reference, applicable to each **LH** approved special process.
- Process specifications which invoke other specifications, have individual operations for each specification requirement which is defined
- Split batches with traceability to and from the original document maintaining the same issue/revision status
- Non-conformance details e.g. concession, production permit, scrap, and rework note numbers
- Tooling and/or software revision status.

### 11.2 Control of Production Process Changes

For Subcontractors only, **LH** *shall* approve proposed amendments to **Critical Part** master manufacturing plans and instructions.



In general, Supplier amendments to work instructions *shall* be accomplished by Supplier authorised personnel only.

Hand-made amendment *shall* be made by a single line through the original text using permanent ink. A stamp, signature (or electronic equivalent) and date *shall* be placed adjacent to an amendment.

Correction fluid *shall not* be used.

### 11.3 Control of Service Operations

Where the civil repair/overhaul contract is for a release to service, the Supplier *shall* have Part 145 or equivalent certification approval with the correct scope to include the Article, as defined by the applicable Capability List.

### 11.4 Identification and Traceability

All Articles are to be identified and traceable in accordance with the Design Requirements or as agreed with **LH**. The traceability system employed *shall* reduce the probability of the need to conduct a full Article recall in the event of Article non-compliance. This *shall* take into consideration the following:

- Traceability of the sub assembly parts/components (including raw material)
- Manufacturing methods, techniques and processes
- Criticality, safety and reliability data
- Complexity of design and processes employed
- Maturity and historic performance of the design/Article.

#### 11.4.1 Acceptance Authority Media / Stamp Control

When acceptance authority media are used (e.g., stamps, electronic signatures, passwords), the organisation shall establish controls for the media.

Manufacturing and Inspection stamps issued to authorised holders *shall* be recorded with specimen signatures of the holder, and a definition of the Scope of Approval for which the stamp is to be used.

If a stamp is withdrawn for any reason, it *shall not* be re-issued for at least **six months** and the reason for withdrawal *shall* be documented.

If a stamp is lost, this *will* require the withdrawal of the remainder of a set of stamps bearing the same identity, for at least **one year**.

An illegible stamp *shall* be replaced.

#### 11.4.2 Serial Numbers

Serial Numbers *shall* be allocated and remain unchanged from the earliest, defined operation, throughout the life of the Article.

Suppliers *shall* ensure the assigned S/N is unique for each P/N and no duplication of S/N can occur.

**Subcontractors** producing serialized Articles *will* allocate (unless otherwise specified by **LH**) a serial number that *shall* consist of 3 alpha and at least 4 numeric characters in order to guarantee identification and traceability of the Articles.

Effective with this revision, the following letters *shall* not be used: B, I, O, S, Z and 3 alpha combination 'AVI', in order to avoid any possible duplication or misunderstanding.

**LH** takes right to assign alpha characters that *will* be communicated through a dedicated field in the Supplier "Statement of Approval".

For Boeing design authority Articles, the Supplier allocated 4 digit number is prefixed by the Boeing ASIS number.

#### 11.4.3 Part marking

Suppliers *shall* ensure marking is always visible, also after painting, as indicated in **LH** drawings (see also QRS-115).

PMA approval code *shall* be identified on every portion of a PMA Article (e.g. subassemblies, component parts, or replacement Articles).

#### 11.4.4 Bag and Tag

When Articles do not require individual identification, they *shall* be 'bagged and tagged' as follows:

- Identification and traceability *shall* be maintained during storage and dispatch
- Identify the packaging for a standard Article (e.g. rivets, washers etc.) with at least the manufacturer/supplier name, part number, and description, quantity and inspection stamp.

#### 11.4.5 Non-Metallic Material

Ensure non-metallic raw material *shall* be identified with:

- Article reference and specification reference
- batch number, quantity and date of manufacture
- date of life expiry or shelf life
- when applicable, cure date and category of rubber.

#### 11.4.6 Metallic Material

Metallic raw material *shall* be identified in accordance with the requirements of the relevant specification (heat/lot/melt number as applicable), with the manufacturers identification permanently marked on the material as follows:

- All lengths of a metal bar are permanently marked
- Small diameter metal bar (e.g. wire) is identified by batch, using a metal tag or label

- Sheet material is marked in lengthwise rows, recurring at intervals not greater than one metre, with one central row and two side rows, spaced equal distance from the centre line to the edge of the sheet.

#### 11.4.7 Identification and Control of Articles not yet Qualified

Articles not yet Qualified must be identified and controlled to maintain Airworthiness standards. Therefore, a Supplier shall not release an Article not yet Qualified to **LH** without receiving authorisation from **LH** and correctly identifying the Article prior to despatch.

The Supplier shall declare on the delivery documentation the not yet Qualified status of the parts.

See QRS-115 or specific program requirements

#### 11.4.8 Safety Hazard and Prohibited material

A Supplier *shall* provide clear identification, instruction for usage, control, training and disposal in accordance with National and International standards if an Article is a *safety hazard* (e.g. Beryllium copper, lithium batteries etc.). Material Safety data sheets *shall* be provided for chemical products.

Any product or packaging delivered to LH *shall* be compliant in terms of hazardous material or substances forbidden by supplier Country laws and European Community as per:

- Regulation (EC) n. 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
- Regulation (CE) n. 850/2004 on persistent organic pollutants (“POP”)
- Regulation (CE) n. 1005/2009 on substances that deplete the ozone layer.
- European Directives Nos. 2002/95/EC and 2011/65/EU (hereinafter referred to as RoHS): Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment
- European Directive No. 96/29/EURATOM: Basic Safety Standards for the Protection of the Health of workers and the General Public Against the Dangers Arising from Ionising Radiation

### 11.5 Packaging and Preservation of Article

Aeronautical Articles *shall* be segregated from commercial Articles. This includes the storage of *software*, software libraries and archives.

All items *shall* be preserved, packed and shipped according to the Purchase Order requirements or, if not specified, to the best commercial rules.

The type of packaging *shall* be defined by the Supplier taking into due consideration: environmental and shipping stresses that can affect parts during shipping, transportation and warehouse handling. Internal packaging and conditioning should be adequate to ensure the proper storage life for the parts. In the case of a sealed package, the external marking shall indicate all the data related to the part (identification, shelf life, curing date etc.).

In general, it is assumed that:

- package and filling materials have to safeguard the Products properties,
- label of "warning notice" and/or "handling notice" must be placed on the external side of the package,
- package should allow the transport document (delivery note) and the copy of delivery documentation (see § 13) to be positioned on the external side of the package. Copy of Delivery documentation *shall* also be provided in advance by email or other means where requested.

Do not use materials that can cause deterioration/corrosion during storage and/or delivery to **LH** and/or their customers. Reference *shall* be made to the applicable **LH** standard for approved preservation of Article methods and products.

In the case of fragile parts (extremely shock sensible), packaging shall be adequate to prevent **impact** damages.

Parts characterized by a glossy finish or by a high sensitivity to surface damage shall be preserved by specific surface protections.

In certain cases, an agreed label should be put onto the intermediate package to highlight that the inner item should be treated with due care.

In the case that the component is a fragile part, where possible, the accessory should not be installed onto the final equipment. The accessory can be shipped in a dedicated separate package. If the packaging contains shelf life parts, the package shall report packaging date and shelf life.

Articles that are (or contain) ESD or operate at high voltage shall be clearly marked accordingly and packaged in accordance with National and International specifications.

Exposed pipe ends, electrical connectors, coaxial cable and exposed openings are to be sealed externally, where possible, to prevent contamination.

Plugs, caps or other devices *shall* remain intact when removed e.g. not made from aluminium be easily identifiable. Ensure not to be damaged if brought into contact with fluids.

Devices containing magnets (such as magnetic pick-up, chip detectors, etc.) *shall* indicate on the packaging a notice indicating the presence of magnets.

Rotating lubricated with grease Articles *shall* have an indication on the packaging that includes a periodic operation during the entire shelf life.

Rubber hose assemblies *shall* be delivered within one year of any compression joint assembly.

The Supplier *shall* maintain a stock rotation system to ensure that completed Articles being delivered are less than five years from manufacturing date unless otherwise specified by the shelf life or justified by Supplier controls to ensure conformity.

**Note: Additional requirements for Articles to deliver to LH Customer Support and Service are referred to in Appendix 3.**

### 11.5.1 Shipments of Equipment and Appliances

Shipment of equipment and parts shall be strictly in accordance with the provisions stated in the Contract and the following should be considered (starting from the delivered product to the external shipping box):

- Identification of the part shall be according to the applicable drawing
- All electrical connectors shall be protected by proper caps; in the case of ESD items approved caps shall be used
- All ports, vents, etc. shall be protected by relevant covers which shall be designed to prevent inclusion during installation Packaging
- Tubes should have proper caps. Caps will be shaped to avoid inclusion during fitting or installation
- An internal package should be used to protect parts from FOD
- A label should be placed onto the internal package with, as a minimum, the following information:
  - AW Part Number
  - Description
  - Serial Number (if applicable)
- If any accessories are delivered with the part, filling material should be used in such a way to avoid loss of small items in the bulk of the protective material.
- Shipping container shall be protected on the inside from any damage which can be caused due to the opening of the container itself
- Documentation, as required by the Purchase Order, shall be placed inside an envelope which shall be clearly marked (e.g. "Do Not Destroy – Quality Documentation Inside")
- The envelope shall be placed inside the most exterior shipping container in the most visible position when opening a properly standing shipping container. Do not place the Quality related documents on the outside of the shipping container.
- Unless any parts require dismounting from their assembly all resulting crates shall be clearly marked with a common reference to the assembly Part Number,

a description of the sub-part inside, the crate reference, the total number of crates.

- Each item inside the crates shall be clearly tagged with the following minimum information:
  - Sub assembly description
  - AW Sub assembly Part Number (if applicable)
  - Reference to the main assembly Part Number

### 11.5.2 Multi Item Delivery

If the Supplier consolidates several different Purchase Orders inside one shipping container the following should be considered:

- Each item shall be singularly packaged to allow single item storage
- On the exterior of the individual package the following information shall be marked, as a minimum:
  - LH Part Number
  - Description
  - Serial Number (if applicable)
- Shipping container shall be constructed aggregating all items belonging to one Part Number inside one intermediate package.
- Intermediate packaging shall have the following minimum information clearly marked on the outside:
  - AW Part Number
  - Quantity
  - List of all Serial Numbers (if applicable)
- Do not mix multiple items of different Part Numbers
- All the quality documentation pertaining to all the delivered parts shall be gathered in one envelope or document container. Documents inside the envelope should be aggregated per Part Number and clearly marked (e.g. "Do Not Destroy – Quality Documentation Inside")
- The envelope shall be placed inside the most exterior shipping container in the most visible position when opening a properly standing shipping container
- Do not place the Quality related documents on the outside of the shipping container.

Without affecting the delivery dates as set out in the Contract, the Supplier may use all reasonable endeavours to consolidate shipments to minimize the cost of delivery.

### 11.5.3 Kit Packaging

For the purpose of this instruction a Kit is an ordered aggregation of items which may be individual parts or collection of items (this can be a multilevel aggregation of Part Number's – Top level relates to the Kit Part Number).

Packaging for Kits shall maintain the ordered multilevel aggregation of Part Number's;

Intermediate packaging shall collect all the packages relevant to next lower level Part Number's and so forth.

Kit packaging shall allow storage and handling of all parts belonging to a kit as a single packaged item.

#### 11.5.4 Kit Identification

On the outside of the single kit a suitable label shall be placed.

- The label shall contain as a minimum the following information:
  - Company Name
  - AW KIT Part Number
  - KIT Description
  - Kit Serial Number (if applicable)
  - Technical Specification for Delivery Revision (if applicable)
  - MIR number (if applicable)
- The label must be placed in a prominent position in respect of kit package shape
- The label should be printed with size/colour such to be easily readable
- On the outside of intermediate packaging the following minimum information shall be presented on the label:
  - AW item Part Number (in most prominent character)
  - Wording as "Part of "
  - Kit Part Number (in less prominent character)
  - Kit Serial Number (if applicable)

#### 11.5.5 Kit Documentations

When a Kit configuration is presented in an agreed **LH** Technical Specification for Delivery (TSD) refer to the section of the TSD for documentation requirements.

In the case of the Kit configuration presented in agreed Supplier documents, the kit will be accompanied by the following minimum documents:

- Kit certificates, per Purchase Order Quality Requirements
- List of first level Kit Part Number's
- List of Missing Parts (for complete deliveries state "none")
- List of Serialized Parts (if applicable)
- List of applicable Concessions (in case state "none")

If the parts are supplied with relevant "Component Log Card", retain the item Log Card together with the part (i.e. do not collect all the Log Cards together with the Kit documentation).

The above documents shall be placed in a suitable envelope or binder.

For single kit deliveries, documents shall be placed inside the kit shipping package in a prominent position.

For multiple Kit deliveries collect all documentation in one envelope or binder which should be put in a prominent position inside the shipping container.

#### **11.5.6 Packaging safety, reuse and recycling**

Packaging must comply with safety requirements of supplier country laws and European Community laws:

- Regulation (EC) No 1272/2008 of the European Parliament and the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
- European Agreement concerning the International Carriage of Dangerous Goods by Road.

Packaging shall pursue maximum reuse and recycling of materials (**at least 10 times for repairable parts**) when dismissed through the appropriate design of material, materials combination and fastening methods (for example avoiding pasting fillers packaging to cardboard or wood).

- Proper packaging can be designed following the European Community specific technical standard:
- EN 13428 Requirements specific to manufacturing and composition - Prevention by source reduction.
- EN 13429 Reuse.
- EN 13430 Requirements for packaging recoverable by material recycling.

#### **11.5.7 Requirements for Articles to be delivered to LH Customer Support and Service**

The requirements listed in the Appendix 3, when referred to in the Purchase Order, **shall be implemented by the Supplier for articles to deliver to LH Customer Support and Service.**

### **11.6 Shelf Life and Limited Life Articles**

Articles *shall* be supplied, according to INCOTERMS specified on the contract, with at least **75%** of the specified shelf life/calendar life unless otherwise specified in the applicable material specification/engineering requirements or otherwise agreed.

*Limited life* materials *shall* be identified and controlled so that 'out-of-life' materials are not used.



## 11.7 Control of Monitoring and Measurement equipment

The Supplier *shall* determine the monitoring and measurement to be undertaken and the monitoring and measuring equipment needed to provide evidence of conformity of Article to determined requirements.

Traceability of calibration to Official National or International recognised standards instruments *shall* always be ensured.

The Supplier *shall* also maintain a register of the monitoring and measuring equipment and define the process employed for their calibration/verification including details of equipment type, unique identification, location, frequency of checks, check method and acceptance criteria.

The Supplier *shall* establish processes to ensure that monitoring and measurement can be carried out and are carried out in a manner that is consistent with the monitoring and measurement requirements.

The Supplier *shall* ensure that environmental conditions are suitable for the calibration, inspection, measurement and testing being carried out.

Those Suppliers that are not ISO/IEC17025 certified laboratories and do not hold a Part 21 Subpart G approval for **LH** *shall* have a dedicated procedure describing:

- Competences, skills and training of personnel in charge to perform calibration of instruments
- Duties and responsibilities of the laboratory
- Environmental and working conditions
- The measures, range, uncertainty and confidence subject to calibration and the list of instruments to be calibrated
- The list of primary standards used for reference
- The machines used to check and calibrate the instruments
- The procedure for calibration and for completion of the applicable technical documentation
- Management of not conform calibration
- Layout and contents of the documentation raised (reports/statements of calibration, etc.) to confirm the calibration of instruments.
- They should ensure direct calibration of their instruments used to inspect conformity of the parts to official recognised standards instruments

**LH** recognises that suppliers who hold accreditation under Part 21 Subpart G or 17025, which includes calibration, already operate to approved calibration procedures.

## 11.8 REACh regulation and Environmental Aspects

Any product or packaging delivered to LH **should be free** of any Substances of Very High Concern (SVHC) listed in the “Candidate List” issued by European Community Chemical Agency (ECHA) as per the European Community Regulation (EC) n. 1907/2006 (REACh) (from now “Reach”).

For each supplied P/N, material or modification thereof, the supplier shall provide to LH alternately:

- The declaration requested by art. 33 of Reach including not less than: SVHC name, the ratio weight/Weight (w/W) in percentage and information for the safe use of the part /subpart that contains the SVHC.
- The declaration that the part does not contain SVHC substances or that each SVHC contained is below 0,1 % w/W.

The declarations above, completed with all the information required using the form QRS-01\_F02 and signed at proper management level, shall be sent once for each P/N, through a supplier's letterhead signed by a supplier authorized representative, to the mailbox:

[reach.declaration.mailbox@leonardocompany.com](mailto:reach.declaration.mailbox@leonardocompany.com)

In the same letter the supplier shall declare:

- to know the Reach regulation and to be compliant with it.
- to be authorised, in accordance with Reach, to continue to supply the P/Ns containing or manufactured using a SVHC listed in the annex XIV of Reach, if the relevant Sunset Date is expired.

These declarations shall be provided for all the P/Ns supplied since July 2014, and subsequently before the delivery of each new P/N

### **11.8.1 Additional Country environmental laws**

Any activities performed by the supplier to produce a LH part must be done in respect of the supplier own country environmental laws.

## **11.9 Control of FO and FOD prevention program**

The Supplier *shall* plan, implement, and control processes, appropriate to the organisation and the product and/or service, for the prevention, detection and removal of foreign objects (FO) and foreign objects debris (FOD) from products, components, articles and assemblies delivered to LH and services provided to LH.

The implementation of a Foreign Object Damage (FOD) Prevention Program is therefore required, taking into consideration what is referred in §11.5.1 about FOD. The AS9146 standard - FOD Prevention Program, Requirements for Aviation, Space and Defense Organizations - is recommended.

This program is intended to be used at all levels of the supply chain organisations, Sub-Tiers included.

FOD Prevention Program Requirements are detailed in the so-called '8 Primary Elements', listed below:

- Program Management

- Operations
- Area Designation
- Training and Personnel Access
- Product Protection
- Housekeeping and Clean-As-You-Go
- Consumables, Hardware, and Personal Items - Accountability and Control
- Tool Accountability and Control

## 12 Control of Records

In this paragraph the requirements are outlined for the retention, storage, retrieval and disposal of records whether in hard copy, optical or electronic media.

This paragraph *shall* be applied by the Supplier with reference to those documents which are needed to prove the conformity of the products to the quality technical document.

### 12.1 Records to be retained

QRS-01\_Appendix 1 identifies the following:

- types of record to be controlled
- applicable paragraph of the standard/regulation where each type of record is required
- examples of records for each type; the examples are not exhaustive and therefore they act as a guide only
- minimum retention period required for each type of record, unless differently stated by more restrictive contractual requirements

### 12.2 Responsibilities

The Supplier shall define the responsible for the control of records and shall specify in a procedure the local controls required for records.

These controls shall include requirements for:

- maintenance,
- identification,
- storage,
- protection,
- archival,
- retrieval,
- retention period,

- disposal of records and inclusion of all records within the scope of a disaster recovery plan.

Consideration shall be given to records to support any change in the status of the organisation responsible for the record(s) (e.g. termination of operation, bankrupt, takeover, transfer of ownership, joint venture). Appropriate contingencies shall be put in place to maintain access to, and integrity of, such records.

### 12.3 General Requirements

For audit purposes, records shall be retrievable within a 24-hour period, unless a longer period is justified.

Where records are held on electronic media, consideration of the retention times and accessibility of the records should take into account the rate of degradation of electronic media and the availability of the devices and software needed to access the records.

Computer back up discs shall be stored in a different location from that containing the working discs, in an environment that ensures they remain in good condition.

Where the records are stored on electronic media, the Supplier shall ensure that a periodical back up is prepared and kept up to date and the computer programs used have characteristics of protection and not alterability of the contained information.

Where the company is the controlling authority, a master copy of, and record of all changes to, superseded documentation shall be retained for the required period by the Issuing Authority.

### 12.4 Maintenance

Records shall be maintained so that:

- they are identified and readily retrievable,
- they are legible and any deterioration or damage is kept to a minimum,
- they are permanent and safeguarded against loss, fire, flood etc.
- the appropriate security arrangements are in force to prevent theft, negligence, malicious or fraudulent use of the contents or their corruption.

Any hand written amendments to a record shall be made as follows:

- cross out the original text with a single line (ensuring that the original text is still visible for comparison),
- write in the amendment,
- sign/ stamp and date the amendment.

Records shall not be changed using correction fluid.

## 12.5 Archiving

The records to be archived can be in the form of any electronic or hard copy documentation.

Removal of records from the archive shall be formally controlled.

Archived records shall:

- be retrievable for reporting or investigations,
- have a clearly defined location that provides a suitable environment to prevent damage and deterioration,
- be the responsibility of the owner or Department/Functional Manager,
- be accessible to personnel with the appropriate authorities to access the records.

Where physical access to a record is needed:

- the access shall be allowed by the record responsible only to authorized personnel or
- a duplicate copy of the record shall be made by the record responsible.

Archiving may only be effectively considered on an individual document basis. There will be a point at which access to records will become significantly less frequent e.g. changing from daily/ weekly to annually or less frequent.

Where archiving is required/ necessary for specific documents this point should be assessed for each document type and an archiving plan developed and documented within a procedure. This plan, when implemented, could realise benefits of freeing resources such as:

- server disk space,
- office floor space, or

providing a reduction in access or search time with respect to review of the remaining “live” documents.

Records shall be stored according to documented environment ensuring that they are readily retrievable (covered by the 24 hours retrieval period) and providing for secure and controlled access (covered by relevant section of § 12.4 above).

## 12.6 Record Retention

Records shall be kept for the time specified in the contract or agreed quality plan. Where the contract or quality plan does not specify a retention time, records shall be kept for minimum periods as stated in QRS-01\_Appendix 1.

Where a date such as “until end of contract” has been stated this shall be increased by the stipulated period, in QRS-01\_Appendix 1, from the cessation of the contract to make sure that there is adequate support for potential issues that may arise.

Where a date such as “life of the product” has been stated this shall be increased by the stipulated period, in QRS-01\_Appendix 1, from the cessation of the product life, to make sure that there is adequate support for potential issues that may arise.

## 12.7 Disposal of records

At the end of the stipulated retention period, the archived records shall be assessed to determine if it requires re-archiving or alternatively disposal.

Prior to record disposal consideration shall be given to any:

- contractual requirements,
- quality plan requirements,
- regulatory requirements, including Authority requirements,
- statutory requirements,
- security classification requirements.

Due regard shall be given to the security classification of when determining the method of disposal (e.g. incineration, shredding). Where records are transferred to another medium, e.g. scanned, then the need to retain the original document shall be formally assessed prior to a decision to destroy the original being taken.

## 13 Delivery Documentation

### 13.1 Certificate of Conformity (CoC)

In order to declare the conformity of each part delivered to **LH**, a CoC shall be provided at each delivery.

Each CoC *shall* have a unique identification and shall have a statement of compliance which is issued, either manually or electronically, by an authorized Supplier person, declaring that the delivered Article complies to purchase order and technical data requirements (including P/N and drawing revision, QRS requirements, etc.).

A POA Holder Supplier is required to issue a CoC, instead of an Authorised Release Certificate, only where specified by LH or if the DDS is *not* yet approved (See QRS-115 for details about DDS – Design Data Set).

The CoC *shall* include:

- Name and address of the Supplier
- **LH** Purchase Order number and line item number
- P/N and description (as defined in the PO)
- Quantity
- Drawing issue (revision) and, when applicable, unincorporated drawing change document reference

- **Modification Status, if the supplier uses physical labelling to indicate status. E.g. *Mod Strike* labels/plates (for definition of Modification Status see § 6.2).**

And, when applicable:

- Serial Number(s) / Batch Number(s)
- TSD Reference
- A statement if the Article is not-airworthy (e.g. qualification pending, open concession, etc.)
- Weight of the Article
- **Any reference to test or inspection report, within Remarks or Comments section**
- FAI reference (see QRS-101 – section ‘Delivery Documentation’)
- The material heat treatment condition
- Reference to **LH** approval to deliver an Article that is incomplete

The following documentation shall be attached to the CoC, when applicable or requested by Purchase Order:

- Copies of any Agreement made with **LH** to deviate from the PO requirements
- Test results, report, MIR, log cards, spring rate, proof load certificate, software version description document, hardness and conductivity measurements,
- Part list for a kit. The list *shall* identify any approved alternative to specified Article
- **LH** Deviation Permit/Concession
- In case of Offload suppliers, copy of the original **LH** work order
- Clear indication if the Article is (or contains) a *safety hazard* for handlers
- Cure date/Shelf life/expiring date and specification for non-metallic product
- FAI **documentation package**
- Raw material, Special Process and NDT sources.

*Note: Articles shall have a residual life according with paragraph [11.6](#). Rubber hose assemblies shall have less than one year from the installation on any compressed joint assembly.*

*Note: The Supplier shall ensure that the accompanying documents for the product are present at delivery as specified in the PO/Contract and are placed as to avoid unintentional removal during shipment.*

*Note: The CoC of the parts delivered with the limitation “Ground/Rig use only”, or in any other case where the item is considered “not Airworthy” shall be over stamped with “Not For Flight”*

*Note: In case of Stockist or Distributor Suppliers, the items always have to be delivered with the CoC of the Stockist or Distributor (declaring the conformity to the Purchase Order) plus the CoC or EASA Form 1 or Tag FAA 8130-3 or -9 or national*

*equivalent document or military reassurance certification of the manufacturer of the item.*

*Note: In case of re-certification, the reference to the previous CoC shall be written in the new CoC. The new CoC must have new tracking number, new issue date and reason of new issuance.*

*When a new certificate is issued to correct error(s) the following statement must be entered in the CoC: "This certificate corrects the error(s) of the certificate [enter original tracking number] dated [enter original issuance date]".*

### **13.2 Airworthiness Certification (EASA Form 1 or EMAR Form 1 / EASA Form 1 Prototype / FAA Form 8130-3 / TCCA Form 1)**

In case the Purchase Order requires the issue of an airworthiness certificate, the supplier shall take all the necessary steps to be able to comply with the order requirements by inserting the Article into its capability list and obtaining the required certification.

#### **Notes:**

- *If a repair order requests an Airworthiness Certificate under TCCA/FAA and the supplier is not yet TCCA/FAA Certified as Repair Station, it shall start the process to achieve the TCCA/FAA Certification as soon as possible, informing SQA about the plan to reach it.*
- *Ensure the Part Number as defined in the PO is recorder on the Airworthiness Certification.*
- *A POA Holder Supplier shall always deliver the articles with an Airworthiness Certificate, unless otherwise agreed by LH.*
- *Articles with not yet approved technical data (that is, until the SADD is issued) shall be delivered with EASA Form 1 Prototype, specifying the reference to the DDS approved by LH in the remarks box.*

### **13.3 Delivery Documentation for Complex Systems**

When a Supplier is responsible for the design/construction of a complex system and also manufactures some "deliverable" sub-components, the delivery of such complete system/s (shipset) should be accompanied with a Manufacturing Inspection Report (MIR) - see form QRS-01\_F03, to be completed with the following instruction:

- List of critical/serialized parts and semi-finished material (forging/casting, etc.) which are a part of the assembly with indication of the relevant First Article Inspection (FAI) status (see QRS-101 for details).
- List of additional or missing changes/modifications as regards to what required by the concerned Procurement Specification or by the Source Control Drawing for supplies.

*Note: in case of unsuccessful introduction or application in advance of the change, supplier shall declare the possible "delta" in addition or diminution.*



- List of Concessions issued with the relevant status, concerning the assembly under examination.
- List of the items missing from the list of the eventual incomplete operations.
- List of the incomplete operations
- List of the eventual added documents (authorization of drawing changes, malfunction notes, etc.)
- List of parts/assemblies built using design documentation still in development (not final)

*NOTE: if a component is supplied separately from its assembly, this information shall be written both in the “incomplete operations” or in the loose item list and if not supplied should be mentioned in the missing list.*

### 13.4 Manufacturing Inspection Report

When an assembly or a kit is ordered with a TSD or equivalent document (issued by **LH** Manufacturing Engineering) a MIR *shall* be delivered with the assembly, describing its compliance with the TSD and identifying the configuration status. Manufacturing Inspection Report (MIR) - see QRS-01\_F03, shall be completed.

### 13.5 Software Delivery

Before the delivery of a SW, approval activities shall be performed.

Three cases are defined for the delivery:

- Stand-alone SW

It shall be delivered on a suitable media (USB Key or CD) with the following documentation:

- CoC
- Airworthiness Certification
- VDD
- ATR (if applicable)
- DDP
- Number of the approved Concessions/Deviation Permits

- SW embedded with **LH** P/N

It shall be delivered embedded in the system with the documentation described in [paragraph 13.3:](#)

- CoC
- DDP
- SCI/VDD
- ATR

Only for the first system, the SW shall be delivered also on a separated media (USB Key, CD-ROM) and with the documentation described in the previous case (Stand Alone SW).

- SW embedded without **LH** P/N

It shall be delivered embedded in the system with the documentation described in [paragraph 13.3](#).

### 13.6 Log Card

Log Card shall be prepared by Supplies if requested, and *shall* be delivered with the Articles. Suppliers *shall* update the Log Card in case of retrofits or inspections executed by its personnel.

The Log Card *shall* be prepared using the QRS-01\_F04 form

### 13.7 Acceptance Test Report

When the Supplier has to perform an ATP, it *shall* prepare and attach to the delivery documentation an ATR containing ATP results and any comment/observation after ATP execution, unless otherwise agreed.

### 13.8 Articles for certification tests

In case of articles for certification tests, specified in the NDC (Notice Design Change) document or to be installed on a not yet certified aircraft, the supplier *shall* declare the applicable configuration on the CoC or the EASA Form 1 Prototype or equivalent.

Besides, these articles *shall* be delivered only with TAC (Test Article Conformity – See QRS 115) or closed FAI declaration.

## 14 Control Plans for Deliveries

### 14.1 Activation Criteria and Notification

For supplied equipment items, assemblies, standard parts developed LH and Offloads, **LH** can decide to define a “Control Plan for Deliveries” when there is reason to believe that the ability of the supplier to meet the required quality level is at risk.

Situations at risk can be one or more of the following:

- The supplier/sub-tier supplier has no QMS aligned with QRS-01 requirements.
- Significant non-conformities to the Supplier QMS have been raised by **LH**.
- Defectiveness level of previous/current deliveries, detected at the incoming/installation inspection or in service, deemed unacceptable in relation to the impact on the production process and/or on the Customer satisfaction.

When **LH** deems it necessary to activate a “Control Plan for Deliveries”, a notification is sent by Procurement to the Supplier.

The **LH** Quality Control of the relevant plant, supported by **LH** SQA (if requested) is in charge to issue, forward to the Supplier, handle and check the “Control Plan for Deliveries”.

## 14.2 Implementation

The “Control Plan for Deliveries” implies that the activities might be performed fully at the Supplier’s, partially at the supplier’s and partially in **LH**’s, or fully in **LH**, in accordance with the instructions provided by **LH** Quality Control.

The completion with positive result of all the operations required is a necessary but not sufficient condition for the delivery acceptance.

Any modification and termination of the Control Plan will be communicated by **LH** Quality Control.

## 14.3 Supplier Fulfilment Record

The evidence of the fulfilment with a positive result of the activities requested by the “Control Plan for Deliveries” shall be provided by the Supplier referring to the Plan identification, on the Certificate of Conformity or applicable certificate.

## 15 Processes governed by LH Specifications and deviations (RFVA)

Suppliers performing Processes governed by **LH** Engineering Process Specifications (AWPS, WHPS, STA etc.) *shall* ensure conformity to the applicable specifications, and process control.

Supplier personnel assigned to those processes *shall* be trained, *shall* demonstrate competence and *shall* be approved for the assigned tasks. The Supplier *shall* assure conformance of equipment, process control testing, methods and materials to fully comply with the process specification requirements.

It is responsibility of the Supplier to check that the specifications are applied at the latest level of revision, unless otherwise specified, and timely implement any updates.

Deviations to the applicable process specifications can only be accepted if approved by **LH** Engineering through Request For Variation Approval (RFVA) before to be implemented.

Any request for deviation shall be submitted by the Supplier to the reference **LH** Quality Control through a QRS-01\_F05 form completed in English with a detailed justification, test reports and other documentation needed to support the request. The assessment of the RFVA (performed by **LH** Engineering) could result in approval (full approval or with limitations) or rejection.

These processes are subject to Quality Control acceptance and subject to **LH** SQA surveillance.

For Special Processes, the QRS-104 *shall* be applied.

## 16 Program Additional Requirements

Specific requirements to be met for some **LH** some programs are listed in QRS-01\_Appendix 2, applicable to Articles delivered per identified aircraft type.

The supplier shall, where applicable, comply with the applicable Documents detailed in QRS-01\_Appendix 2 at the last applicable revision.

In the case of conflict between QRS-01 and the document listed in QRS-01\_Appendix 2, the latter take precedence.

## 17 Obsolescence

SUPPLIERS *SHALL* ENSURE THAT PRO-ACTIVE OBSOLESCENCE MANAGEMENT IS IMPLEMENTED, CONTROLLED AND MONITORED WITHIN THE LIFECYCLE OF THE PRODUCT. THIS *SHALL* BE AN INTEGRAL AND SUBSTANTIAL PART OF THE DESIGN, DEVELOPMENT, MANUFACTURING, PRODUCTION AND PRODUCT SUPPORT PROCESSES RELATING TO THE ARTICLE.

## 18 Reference Documents

Document	Description
Regulatory	
EASA PART 21	Rules for the airworthiness and environmental Certification
EASA PART 145	Rules for Continuing airworthiness
AER(EP).P-145	Requirements for maintenance organisations
EMAR 145	European military airworthiness requirements for maintenance organisations
AER(EP).P-21	Certification of military aircraft and related products, parts and appliances, and design and production organisations
EMAR 21	European military airworthiness requirements for production organisations
FAA CFR 14 Part 21	Certification Procedure for Products and Articles
FAA CFR145	Repair Stations
CCAR 561	Approved Manufacturers
CCAR 573	Approved Maintenance Organizations
Regulation (EC) No. 1907/2006	Concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
Contractual (applicable when required by PO's / Contract)	

AQAP	Series of Documents
AER-Q-2110	Requisiti di assicurazione Qualità della D.G.A.A. concernenti la progettazione, lo sviluppo e da produzione
STANAG 4107	Mutual Acceptance of Government Quality Assurance and Usage of the Allied Quality Assurance Publications
International	
ARP 6178	Fraudulent/Counterfeit Electronic Parts; Tool for Risk Assessment of Distributors
AS 5553	Fraudulent/Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition
AS 6081	Fraudulent/Counterfeit Electronic Parts: Avoidance, Detection, Mitigation, and Disposition - Distributors
AS 6174	Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel
AS 6462	AS5553, Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition Verification Criteria
AS 6496	Counterfeit Electronic Parts – Authorized/Franchised Distributors
AS 9146	Foreign Object Damage (FOD) Prevention Program, Requirements for Aviation, Space and Defense Organizations
EN/AS/SJAC 9103	Variation Management of Key Characteristics
EN/AS/SJAC 9104	Requirements for Aerospace Quality Management System Certification/Registrations Program
EN/ARP 9107	Direct Delivery Authorization Guidance for Aerospace Companies
EN/ARP 9114	Direct Ship Guidance for Aerospace Companies
EN/AS/SJAC 9116	Aerospace Series – Notice of Change (NOC) Requirements
EN/AS/SJAC 9131	Quality System – Non-Conformance Documentations
EN/AS/SJAC 9132	Data Matrix Quality Requirements for Parts Marking
EN 9130	Retention of Documents and Records
EN/AS 9133	Qualification Procedure for Aerospace Standard Parts
EN/ARP 9134	Supply Chain Risk Management
EN/AS 9136	Aerospace series Guideline Root Cause Analysis and Problem Solving
EN/ARP 9137	Guidance for the Application of AQAP 2110 within a 9100 Quality Management System
EN/ARP/SJAC 9162	Aerospace Operators Self Verifications Program
ANSI / EIA-649	National Consensus Standard for Configuration Management
IAQG SCMH	IAQG Supply Chain Management Handbook
Commercial	
ISO 9000	Quality management systems — Fundamentals and vocabulary
ISO 10001	Quality management - Customer satisfaction - Guidelines for codes of conduct for organizations

ISO 10002	Quality management - Customer satisfaction - Guidelines for complaints handling in organizations
ISO 10003	Quality management - Customer satisfaction - Guidelines for dispute resolution external to organizations
ISO 10004	Quality management – Customer satisfaction - Guidelines for monitoring and measuring
ISO 10005	Quality management - Guidelines for quality plans
ISO 10006	Quality management - Guidelines for quality management in projects
ISO 10007	Quality Management – Guidelines for Configuration Management
ISO 10012	Measurement management systems - Requirements for measurement processes and measuring equipment
ISO TR10013	Guidelines for quality management system documentation
ISO 10014	Quality management - Guidelines for realizing financial and economic benefits
ISO 10015	Quality management - Guidelines for training
ISO 10018	Quality management - Guidelines on people involvement and competence
ISO 10019	Guidelines for the selection of quality management system consultants and use of their services
ISO 14001	Environmental Management Systems –with guidance for use
ISO 14721	Space Data and Information Transfer System – Open Archival Information System (OAIS) – Reference Model
OHSAS 18001	Occupational Health and Safety Assessment Series
ISO 21500	Guidelines on project management
ISO 31000	Risk management - guidelines
ISO/IEC 31010	Risk management - Risk assessment techniques
ISO/IEC/IEEE 12207	Systems and software engineering - Software life cycle processes
Applicable Documents	
ISO 9001	Quality Management Systems – Requirements
EN/AS/JISQ 9100	Quality Management Systems – Requirements for Aviation, Space and Defense Organisations
EN/AS/SJAC 9101	Quality Management Systems Audit Requirements for Aviation, Space and Defense Organisations
EN/AS/SJAC 9110	Quality Management Systems – Requirements for Aviation Maintenance Organisations
EN/AS/SJAC 9115	Quality Management Systems - Requirements for Aviation, Space and Defense Organisations – Deliverable Software
EN/AS/SJAC 9120	Quality Management Systems – Requirements for Aviation, Space and Defense Distributors
EN/AS/SJAC 9102	Aerospace First Article Inspection Requirement
EN/AS/SJAC 9103	Variation management of key characteristics
EN 4179	Qualification and approval of personnel for non-destructive testing
NAS 410	Certification and qualification of non-destructive test personnel

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## 19 Annexes, Appendices and Forms

- QRS-01\_Appendix 1 – Record Retention Table
- QRS-01\_Appendix 2 – Additional Program Requirements
- QRS-01\_Appendix 3 – Requirements for Articles to deliver to LH Customer Support and Service
- QRS-01\_Appendix 4 – Counterfeit Electrical, Electronic, and Electromechanical (EEE) Parts
- QRS-01\_F01 – Non Conformity Report (NCR) form
- QRS-01\_F02 – REACH Declaration form
- QRS-01\_F03 – Manufacturing Inspection Report form
- QRS-01\_F04 – Log Card Form
- QRS-01\_F05 – Request For Variation Approval form