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## AS 9110 Rev. C

### Quality Management Systems

Quality Manual / Documented Information

Document No. QM-9110-C

Street Address

City, State, Zip

Tel,

Cell Phone:

Email:

Web Site:

Blue text throughout the manual highlight areas for customization

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**Instructions:**

This manual is used as a template in developing your AS 9110 C Quality Management System.

- Methods and systems used in the development and operation of the QMS vary widely from company to company.
- The blue text and suggestions displayed in the manual are intended to offer some options and to highlight the areas that need attention / update / replacement.
- Review the text and suggestions and at a minimum replace or update them to reflect the unique / customized information of your quality system requirements.
- Delete the blue text after each task is completed.
- Use replace function – enter “Your Company” in find space, enter your company name in replace space – system should make changes throughout the entire document.
- Additional details and instructions in the use of the QM-9110-C manual template are included in a separate file “QMS-Template-Instructions”.

Additional documentation review.

- Similarly, the blue text and suggestions displayed in the QMS documentation (that will follow) for the procedures, instructions, attachments, forms, and flow diagrams are intended to offer some options and to highlight the areas that require update or replacement.



Blue text gives guidance for customization

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## Risks and Opportunities Guidelines

- The risks and opportunities are determined and addressed in order to ensure that the QMS can achieve its intended result(s), prevent, or reduce, undesired effects, and achieve continual improvement.
  - Options to address risks and opportunities can include: avoiding risk, taking risk in order to pursue an opportunity, eliminating the risk source, changing the likelihood or consequences, sharing the risk, or retaining risk by informed decision.
  - Actions to address the risks and opportunities are planned in order to integrate and implement them into the processes and to evaluate the effectiveness of these actions.
  - Actions taken to address risks and opportunities are proportionate to the potential impact on the conformity of products and services.
  - With inputs from the [Quality team / ISO steering committee](#), this risk and opportunity worksheet is prepared by the [Quality team leader / ISO management representative](#).
  - The [Quality team / ISO steering committee](#) is responsible to set priorities for projects where risks and opportunities need to be addressed and to assign risk or opportunity project responsibilities.
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The following instructions are used to assess the risks associated with the planning of the QMS processes and to assign priorities for the actions needed to address the risks and opportunities.

To determine the risks and opportunities that need to be addressed:

- In table below identify the activities/processes that are risk and opportunity candidates,
- Assign a value for each assessment category,
- R-values of 1 and 2 represent Risks/Threats, and O-values of 3 and 4 represent Opportunities.
- The project planning worksheet F-810-002 is used to plan high priority projects.

### **Customer Impact: How much does the customer care?**

- 1 = Low customer priority
- 4 = Very important to the customer

### **Changeability Index: Can you fix it?**

- 1 = Very Difficult / Expensive to fix
- 4 = Relatively easy / cheap to fix

### **Performance Status: How broken is it?**

- 1 = Only a few problems in the past
- 4 = Always seems to be causing problems

### **Business Impact: How important is it to the business?**

- 1 = Has little impact on the business
- 4 = Is very important to the business

### **Work Impact: What resources are available?**

- 1 = People who have capability to work on this activity are scarce
- 4 = People who have capability to work on this activity can be available

**Example of completed worksheet**

This worksheet is used to identify the processes required for the Quality Management System. It is designed to ensure that all the requirements of the AS 9110 C standard are addressed and documented information available. In addition, the worksheet can be used as a training tool to help interested parties, such as employees, customers, auditors, and registrar understand your QMS.

<b>PROCESS INPUTS - AS 9110 C for Aviation Maintenance Organizations</b>	<b>PROCESS OUTPUTS Key Processes</b>	<b>DOCUMENTED INFORMATION for Processes</b>	<b>RESPONSIBILITY for Processes</b>	<b>REMARKS</b>
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## **1.0 Purpose/Scope**

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- 1.1 This procedure describes the process for controlling of technical data for maintenance services to ensure that services at **Your Company**. You can search and replace "Your Company" with your own company name. ←
- 1.2 Maintenance service providers typically do not design and development products and this procedure applies to the design and development of technical data for maintenance programs.

## **2.0 Responsibilities and Authorities**

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- 2.1 The **Research & Development / Technical manager** has the prime responsibility and approval authority for this procedure.
- 2.2 In support of the **Research & Development / Technical manager**, the **Project manager / design engineer** are responsible for initiating the design plan, getting appropriate approvals and holding design reviews.
- 2.3 Additional responsibilities for **project manager / design engineer / design team / sales and marketing** personnel are detailed in relevant paragraphs of section 5.0.

## **3.0 References and Definitions**

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- 3.1 Reference: This document relates to clause 8.3 of the AS 9110 C standard covering, Design and development of products and services.
- 3.2 Definitions
- 3.2.1 Design Verification: Determination that the product meets requirements.
  - 3.2.2 Design Validation: Determination of the product's ability to meet user needs.
  - 3.2.3 Design Changes: Changes made to the inputs or plan during design and development activities.

## **4.0 Resources**

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- 4.1 None

## **5.0 Instructions**

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- 5.1 In support of the planning procedures P-810 for Operational planning and control, and P-910 for Monitoring, measurement, analysis and evaluation, design and development projects are initiated and planned for new technical data needed for maintenance programs.
- 5.1.1 Design projects detail the requirements for products and services so that they are adequate for subsequent production or service provision.
  - 5.1.2 When authorized by the competent authority, a process for the development of technical data is established, implemented, and maintained.
  - 5.1.3 When developing repair data, the following are specified:

## Design and Development

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- Classification of the repair such as minor, or major
  - Description of the repair
  - Evidence of approval.
  - You may want to categorize the project on a scale of 1 to 10 where 10 indicates a complex (major) project and 1 a simple (minor) project.
- 5.1.4 When developing aircraft maintenance programs for continuing airworthiness, a process to ensure the control and availability of the aircraft and engine statuses and the preparation of the work order is maintained.
- When developing, and revising aircraft maintenance programs, maintenance schedules, such as maintenance planning data, as developed by the type certificate holders are used and consider the specific needs of the aircraft operator.
- 5.2 The R&D manager designates a project manager / project engineer for the project, assigns a project number, and logs the project in the log.
- 5.2.1 The project manager starts a Project plan to determine the stages and controls for design and development.
- 5.2.2 The Design plan, form F-830-001 considers the: ← Related documents are referenced.
- Nature, duration and complexity/simplicity of the design and development activities,
  - Responsibilities and authorities of the design team involved in the design and development process,
  - Internal and external resources needed for design and development,
  - Need to control interfaces between individuals and parties involved in the design and development process,
  - Requirements that specify process stages, including applicable design inputs and design and development reviews,
  - Required design and development verification and validation,
  - Need for involvement of customer and user groups in the design and development process,
  - Level of control expected of the design and development process by customers and other relevant interested parties,
  - Necessary documented information and approvals to confirm that design and development requirements have been met.
- 5.3 The design team collects design inputs and documents them on the design plan or on an attachment to the design plan.
- 5.3.1 Inputs include:
- Functional and performance requirements essential to the products and services,
  - Applicable statutory and regulatory requirements,
  - Standards or codes of practice;