



AEROSPACE STANDARD

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and AS9104/3

Requirements for Aerospace Quality Management System Certification/Registrations Programs

RATIONALE

This document is Cancelled and Superseded by AS9104/1, AS9104/2, and AS9104/3.

CANCELLATION NOTICE

This Technical Report has been declared "CANCELLED" as of December 2017 and has been superseded by AS9104/1, AS9104/2, and AS9104/3. By this action, this document will remain listed in the respective index, if applicable. Cancelled Technical Reports are available from SAE.

After the initial publication of International Aerospace Quality Group (IAQG) 9104 standard in 2004, it became evident that a single standard containing all aspects of the Industry Controlled Other Party (ICOP) Aerospace Quality Management System (AQMS) was too complex. It was decided that the standard be broken into three sections:

9104/1 – Requirements for Aviation, Space, and Defense Quality Management System Certification Programs;

9104/2 – Requirements for Oversight of Aerospace Quality Management System Registration/Certification Programs;
and

9104/3 – Requirements for Aerospace Auditor Competency and Training Courses.

The requirements for oversight and AQMS auditor qualification information (9104/2 and 9104/3 respectively) were removed from the original 9104 text. This effort necessitated the total rewrite of the initial standard, now re-designated as 9104/1, which is the keystone document of the 9104-series trilogy.

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FOREWORD

In December 1998, the Aerospace Industry established the International Aerospace Quality Group (IAQG) with the purpose of achieving significant improvements in quality and reductions in cost throughout the value stream.

The IAQG has developed specific requirements for quality systems that are to be implemented and maintained throughout the supply chain in the design, manufacture and maintenance of products used in aviation and space applications. These requirements are published simultaneously as AS/EN/JISQ 9100-series by SAE in the Americas, AECMA in Europe and JISQ in Asia/Pacific. Other countries will follow with technically identical national standards.

In this document, these standards are indicated as Aerospace Quality Management Systems (AQMS) Standards.

A further initiative of the IAQG was the development of a truly global scheme for the use of assessment results performed by Certification/Registration Bodies (CRBs), based on the 9100-series standards and taking into account the schemes already in use or under development in the various IAQG sectors.

All these schemes have two major elements in common:

- Use of a voluntary certification/registration scheme with specific aerospace elements and requirements, under the supervision and control of the aerospace industry.
- A harmonized approach to the CRBs with the purpose to improve the quality level and control throughout the whole supply chain.

This document provides requirements for sectorial/regional schemes for the controlled use of assessment results of CRBs, based on three fundamentals:

- Use of accredited CRBs.
- Use of qualified and approved aerospace auditors.
- Use of international aerospace standards for quality management systems in aerospace industry.

This document addresses the following issues:

- a. Qualification and accreditation of CRBs.
- b. Assessment of quality systems by accredited CRBs.
- c. The principles for determining the content and duration of assessments.
- d. Reporting and control of nonconformities.
- e. The form of registration recommendations.
- f. Minimum standards of qualification and experience for aerospace auditors employed by CRBs.
- g. Authentication of auditors by CRBs, Accreditation Bodies (ABs) and the IAQG sectors.
- h. Oversight of ABs by applicable Sector Management Structure (SMS).
- i. Oversight of CRBs by applicable SMS and IAQG Original Equipment Manufacturers (OEM).
- j. Operation of the IAQG oversight function.

This document introduces certification/registration to the 9110 (maintenance organizations) and 9120 (stockist/distributors) standards, use of ISO 19011, mandatory use of the scoring process, as well as a number of clarifications and detail improvements resulting from the initial operation of the scheme. The requirements of this document are effective upon publication.

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1. SCOPE:

These requirements are applicable to IAQG sector schemes when making use of ABs, CRBs and their auditors, for the assessment and certification/registration of supplier quality systems in accordance with the requirements of this document.

The quality management system standard used by the CRB shall be 9100/9110/9120, as appropriate to the supplier's activities. It shall be applied to the supplier's complete Quality System that covers aerospace products. Sectors may use these requirements for other standards.

IAQG members have committed to recognize the equivalence of certification/registration of a suppliers quality management system to either of the AS, EN or JISQ/SJAC standards.

1.1 Purpose:

The purpose of this document is to give requirements on the process for providing aerospace companies and their suppliers with assessment and certification/registration of their quality systems, by accredited CRBs.

2. REFERENCES:

Assessments shall be based on the latest versions of the following quality systems standards and guidelines, as appropriate.

AS/EN/JISQ 9100	Quality Management Systems - Aerospace - Requirements
AS/EN 9110	Quality Management Systems - Aerospace - Requirements for Maintenance Organizations
AS/EN 9120	Quality Management Systems - Aerospace - Requirements for Stockist / Distributors

NOTE: The above standards are referred throughout this document as AQMS Standards.

2. (Continued):

AS/EN/SJAC 9101 Quality Management Systems Assessment

AS/EN 9111 Quality Management System Assessment applicable to
Maintenance Organizations

AS/EN 9121 Quality System Assessment Applicable to Stockist Distributors

NOTE: The above standards are referred throughout this document as the Aerospace
Assessment Report and Questionnaires.

AS/EN/SJAC 9102 Aerospace First Article Inspection Requirement

AS/EN/SJAC 9103 Variation Management of Key Characteristics

ISO 9000 Quality Management Systems - Fundamentals and Vocabulary

ISO 9001 Quality Management Systems - Requirements

ISO 9004 Quality Management Systems - Guidelines for Performance
Improvements

ISO 19011 Guidelines for Quality and/or Environmental Management Systems
Auditing

ISO/IEC Guide 61 General Requirements for Assessment and Accreditation of
Certification/Registration Bodies

ISO/IEC Guide 62 General Requirements for Bodies Operating Assessment and
Certification/Registration of Quality Systems

IAF Guidance on the Application of ISO/IEC Guide 61

IAF Guidance on the Application of ISO/IEC Guide 62

3. DEFINITIONS:

For the purpose of this document the following definitions are used:

3.1 Accreditation Body (AB):

A body recognized by an IAQG sector that has the primary responsibility for the accreditation of CRBs to issue certifications/registrations to AQMS standards.

3.2 Aerospace:

The business of design, manufacture, maintenance, distribution and support of aviation vehicles and engines, accessories and component parts, all ancillary and allied businesses including aerospace vehicle operations.

3.3 Aerospace Experience Auditor¹:

An auditor that has met the requirements set forth in 7.2, 7.3 or 7.4 of this document.

3.4 Aerospace Product:

An aircraft, rotorcraft, guided weapon, launcher, spacecraft or other product designed to travel through the air, inside or outside the ground effect, or to travel outside the influence of the earth's atmosphere or major components of these products such as engines or major sub-systems or parts, appliances, equipment and materials as contained in these.

3.5 Auditor²:

A person that has met the requirements set forth in 7.1 of this document.

3.6 Certification/Registration Body (CRB):

A party that audits and certifies/registers the quality management system of organizations with respect to published quality management system standards and any supplementary documentation required under the system.

3.7 International Aerospace Quality Group (IAQG):

A body of prime aerospace OEMs. This group is chartered to develop common requirements for use by the aerospace industry for quality improvement.

^{1, 2} NOTE: Sectors may use other names for 'Auditor', Aerospace Auditor' and 'Aerospace Experienced Auditor' as long as the requirements of this documents are applied.

3.8 International Aerospace Quality Group (IAQG) Sector or Sector:

A sub-structure of the IAQG, consisting of the members in a specific area, such as Americas, Europe and Asia/Pacific.

3.9 Nonconformity:

The absence of, or the failure to implement and maintain, one or more quality management system requirements, or a situation that would, on the basis of available objective evidence, raise significant doubt as to the quality of what the organization is supplying.

Major: The absence of, or total breakdown of a quality management system element specified in the AQMS standard or any non-conformities where the effect is judged to be detrimental to the integrity of the product, processes or service.

Minor: A single system failure or lapse in conformance with a procedure relating to the AQMS standard.

NOTE: A number of minor non-conformities against one requirement can represent a total breakdown of the system and this can be considered as a major nonconformity.

Any finding (e.g., comments, observations) that equates to the above definition shall be documented as a nonconformity, categorized as major or minor, and dealt with in accordance with 8.3.

3.10 On Line Aerospace Supplier Information System (OASIS):

The web-based IAQG database containing information on participating National Aerospace Industry Associations, ABs, accredited CRBs, authenticated Aerospace Experience Auditors, Certified Suppliers and Assessments

3.11 Sector Management Structure (SMS):

The organization established in a sector that manages the application of the sector scheme based on this document. Each sector may use a different name for this organization (e.g., Registrar Management Committee in the Americas and Asia/Pacific, Certification Body Management Committee in Europe within AECMA).

4. GENERAL:

- 4.1 The requirements stated herein shall be based on the latest versions of the documents listed in Section 2.
- 4.2 Aerospace additional requirements are identified in the AQMS Standards as **bold italic** items. These elements are in addition to ISO 9001 elements and should also be applied in the organization's quality system.
- 4.3 Data, in the form of checklists, approvals or other company specific information, generated in the application of this document shall be handled as "confidential, proprietary and sensitive" between the parties generating, collecting, or using the data. Companies using this data shall keep its usage confidential both internally and externally, unless otherwise agreed in writing by the consenting parties. Data resident at the ABs and CRBs on OEMs shall not be shared with OEM competitors. However, this data may be subject to audit or review at any time by applicable ABs, SMS, government or regulatory bodies and the IAQG Oversight Team (OT) (see Section 14).

5. REQUIREMENTS FOR ACCREDITATION BODIES:

- 5.1 The responsibilities of the AB shall be to review and recommend accreditation of the CRBs to the requirements of this document. The AB shall approve the use of "marks" and logos for use on certificates of approval. The AB shall work with the IAQG sector to give assurance that CRBs continue to perform in a manner consistent with the requirements contained herein and in the IAQG sector scheme. ABs shall be members of the IAF (International Accreditation Forum) and signatories of the IAF MLA (Multi-lateral Agreement) to participate in this process. ABs shall be in conformance to ISO/IEC Guide 61 and IAF Guidance on the Application of ISO/IEC Guide 61.
- 5.2 ABs shall have a person(s) with aerospace background on their advisory group, as defined in ISO/IEC Guide 61.
- 5.3 The basis for AB accreditation of CRBs to AQMS shall include an initial full system witness audit of a AQMS certification/registration per the AB's operating procedures.
- 5.4 AB audit teams who are conducting assessments of CRBs for the purposes of this scheme shall include an auditor with aerospace experience (same as 7.2, 7.3, or 7.4) or have aerospace industry expert(s) with experience (same as 7.2, 7.3, or 7.4) as part of the audit team.
- 5.5 The AB shall have the specific procedures, tools and techniques in its systems for granting, maintaining, suspending and withdrawing accreditation of CRBs (e.g., AQMS Standards and Aerospace Assessment Report and Questionnaires, briefing notes) and for compliance with Section 8 of this document.