

### SLOVENSKI STANDARD oSIST prEN 9104-003:2022

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#### Aeronavtika - Sistemi vodenja kakovosti - 003. del: Zahteve za usposabljanje, razvoj, usposobljenost in preverjanje avtentikacije presojevalcev na področju zračnega prometa, vesoljskih poletov in obrambe

Aerospace series - Quality management systems - Part 003: Requirements for Aviation, Space, and Defence Auditor Training, Development, Competence, and Authentication

### iTeh STANDARD

Luft- und Raumfahrt - Qualitätsmanagementsysteme - Teil 003: Anforderungen an Schulung und Qualifikationen von Auditoren für Qualitätsmanagementsysteme der Luftund Raumfahrt (AQMS)

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Série aérospatiale - Systèmes de management de la qualité - Partie 003 : Exigences relatives à la formation, au développement, à la compétence et à l'authentification des auditeurs dans le domaine aéronautique, spatial et de défensed5cf5a-

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# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

# DRAFT prEN 9104-003

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Will supersede EN 9104-003:2010

**English Version** 

### Aerospace series - Quality management systems -Part 003: Requirements for Aviation, Space, and Defence Auditor Training, Development, Competence, and Authentication

Série aérospatiale - Systèmes de management de la qualité - Partie 003 : Exigences relatives à la formation, au développement, à la compétence et à l'authentification des auditeurs dans le domaine aéronautique, spatial et de défense

Luft- und Raumfahrt - Qualitätsmanagementsysteme -Teil 003: Anforderungen an Schulung und Qualifikationen von Auditoren für Qualitätsmanagementsysteme der Luft- und Raumfahrt (AQMS)

This draft European Standard is submitted to GEN members for enquiry. It has been drawn up by the Technical Committee ASD-STAN.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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### prEN 9104-003:2021 (E)

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### **European foreword**

This document (prEN 9104-003:2021) has been prepared by the Aerospace and Defence Industries Association of Europe – Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 9104-003:2010.

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### Introduction

Industry established the IAQG, with representatives from Aviation, Space, and Defence (ASD) companies in the Americas, Asia/Pacific, and Europe, to implement initiatives that make significant improvements in quality and reductions in cost throughout the value stream.

The IAQG developed a global scheme for the acceptance and recognition of audits performed by Certification Bodies (CBs), using the EN 9100 series standards and taking into account the schemes already in use or under development in the various IAQG sectors, including the application of a

- 3rd party audit certification scheme with specific ASD requirements, under the guidance and oversight of the ASD industry and
- harmonized approach for the purpose of improving the quality and process control throughout the entire supply chain.

Confidence and reliance in the audit process depend on the development and provision of auditor training, robust auditor authentication, and competence of those conducting the audits. Competence is based on the demonstration of personal attributes, and the ability to apply knowledge and skills gained through education, training, and experience.

This document has been prepared by the IAQG and standardizes the requirements for ASD Quality Management System (OMS) auditor training, development, competence, and authentication in support of certification to Aerospace Quality Management System (AQMS) standards. This document supplements existing international standards for competency requirements.

In this standard, the following terms are used: "shall" indicates a requirement;

- "should" indicates a recommendation; rEN 9104-003:2022 •
- "may" indicates a permission; ic63-42d3-a34b-707f2f513554/osist-pren-9104-003-
- "can" indicates a possibility or capability. 2022

Words "example" or "e.g." indicate suggestions given for guidance. Information marked "NOTE" is for guidance in understanding or clarifying the associated requirement.

#### Rationale

This standard has been revised to align with the latest revisions of the International Aerospace Quality Group (IAQG) EN 9104-001 and EN 9104-002 standards, the International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC) EN ISO/IEC 17021-1 and EN ISO/IEC 17021-3 standards, and to incorporate lessons learned from past activities, including feedback from interested parties.

### 1 Scope

This document defines the minimum requirements for auditors, CBs, Auditor Authentication Bodies (AABs), Training Provider Approval Bodies (TPABs), and Training Providers (TPs) who participate in the IAQG Industry Controlled Other Party (ICOP) scheme. The requirements in this standard supplement those defined within the EN 9104-001, EN 9104-002, EN ISO/IEC 17021-1, and EN ISO/IEC 17021-3 standards.

Data protection for the parties subject to this document and other relevant requirements of the ICOP scheme are managed via bi-lateral contracts between the joint controllers of the data.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 9100, Quality Management Systems - Requirements for Aviation, Space and Defence Organizations<sup>1</sup>

EN 9104-001, Aerospace series - Quality management systems - Part 001: Requirements for Aviation, Space, and Defence Quality Management System Certification Programs<sup>1</sup>

EN 9104-002, Aerospace series - Quality management systems - Part 002: Requirements for Oversight of Aerospace Quality Management System Registration/Certification Programs<sup>1</sup>

EN 9110, Quality Management Systems - Requirements for Aviation Maintenance Organizations<sup>1</sup>

EN 9120, Quality Management Systems - Requirements for Aviation, Space and Defence Distributors<sup>1</sup>

EN ISO 9000, Quality management systems, Fundamentals and vocabulary (ISO 9000)

EN ISO/IEC 17000, Conformity assessment - Vocabulary and general principles (ISO/IEC 17000)

#### **3** Terms and definitions

For the purposes of this document, the terms and definitions in EN ISO 9000, EN ISO/IEC 17000, the EN 9104 series standards, the IAQG International Dictionary, and the following apply.

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ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at https://www.iso.org/obp
- IEC Electropedia: available at https://www.electropedia.org/

#### 3.1

#### audit experience

experience gained and demonstrated by direct involvement in an audit as a team leader or team member conducting 2nd or 3rd party QMS or AQMS audits

<sup>&</sup>lt;sup>1</sup> As developed under the auspice of the IAQG and published by various standards bodies [e.g., ASD-STAN, SAE International, European Committee for Standardization (CEN), Japanese Standards Association (JSA)/Society of Japanese Aerospace Companies (SJAC), Brazilian Association for Technical Norms (ABNT)].

#### 3.2

#### auditor authentication

process and output from confirming an auditor's competence has met or exceeded the minimum requirements for an auditor, as defined in this standard

#### 3.3

#### auditor authentication cycle

period of three years from initial authentication or re-authentication

#### 3.4

#### auditor performance management

activity undertaken to monitor individual 3rd party auditor performance and establish improvement programs, as required, to maintain auditor authentication, based on the results of performance information gathered

#### 3.5

#### **Authenticated Auditor**

AA

person with the demonstrated competence (i.e., knowledge, skills, and personal attributes) to conduct an audit on ASD organizations that has been authenticated in accordance with the requirements of this standard

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3.6

#### Authenticated Experienced Auditor REVIEW AEA

person with the demonstrated competence (i.e. knowledge, skills, and personal attributes) to lead an audit on ASD organizations that has been authenticated in accordance with the requirements of this standard, together with appropriate recognized work experience and demonstrated knowledge in the ASD industry oSIST prEN 9104-003:2022

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#### 3.7 Aviation, Space, and Defence (ASD) lead auditor course

interactive training course approved by a TPAB, that includes current EN 9100 standard requirements, the process approach as it applies to auditing an entire AOMS, and how to plan, conduct, report, followup, and close an AQMS audit

#### 3.8

#### **Continual Professional Development** CPD

#### means by which professionals improve and broaden their knowledge and skills required to enhance individual capability

Note 1 to entry: CPD includes relevant structured learning activities that focus on subjects and topics that are related to the audit profession, including emerging industry technologies and regulatory requirements

#### 3.9

#### contractor

person who undertakes work on behalf of an organization on a contract basis that is specified in a mutually binding agreement

Note 1 to entry: This does not include individuals who provide expert advice professionally (i.e. consultancy).

#### 3.10

#### full system audit

direct involvement as a team leader or team member (as applicable) in a QMS (EN ISO 9001) or AQMS (EN 9100, EN 9110, EN 9120) audit that covers all requirements of the respective standard, aligned to the certification scope of the audited organization

#### 3.11

#### International Aerospace Quality Group (IAQG) sanctioned requisites

activity mandated by the IAQG to support auditor authentication (e.g., training, assessment, evaluation)

#### 3.12

#### **Performance Improvement Plan**

PIP

means to address performance improvement that includes a clear, structured set of actions and deliverables, together with timescales, in order to attain a specified level of performance

#### 3.13

#### regulatory aviation maintenance specific training course

interactive training course (or a series of courses) approved by a civil/military aviation authority, conducted over a minimum two working days relating to aviation maintenance regulations

#### 3.14

#### suspension

temporary restriction(s) applied to authentication or approval activity due to the non-fulfilment of requirements

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#### 3.15 withdrawal

cessation of authentication or approval due to the non-fulfilment of requirements

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#### 4.1 General

**4.1.1** Auditors seeking authentication shall meet the requirements defined within this standard and provide documented evidence of the required baseline training, audit experience, IAQG sanctioned requisites, work experience, industry knowledge, and CPD (as applicable) relative to the applicable AQMS standard to the AAB.

**4.1.2** The following auditor grades have been established for each AQMS standard:

- a) Authenticated Auditor (AA);
- b) Authenticated Experienced Auditor (AEA).

#### 4.2 Auditor Authentication Requirements

**4.2.1** Auditor authentication shall be undertaken in accordance with the applicable requirements relating to each authentication phase:

- a) Auditor initial authentication (see Clause 5);
- b) Auditor re-authentication (see Clause 6); or

c) Auditor advancement (see Clause 7).

**4.2.2** Auditors shall only conduct audits for which they are authenticated (e.g. AA/AEA EN 9100 auditors cannot perform audits to EN 9110 or EN 9120).

**4.2.3** Auditors can be authenticated for one or more grades and/or standards, but only for one grade (AA or AEA) per standard at the same time.

**4.2.4** Auditors shall be authenticated to EN 9100, in order to be authenticated for other AQMS standards (i.e. EN 9110 and/or EN 9120).

Where an auditor is already authenticated to EN 9100 and is seeking authentication to another AQMS standard, the work experience utilized for initial authentication may be used to demonstrate compliance to the requirements, provided the EN 9100 authentication is current.

**4.2.5** Auditors shall disclose within their application to the AAB if they have had any previous applications or authentications rejected, suspended, or withdrawn; including the reason(s) why.

#### 4.3 Auditor Work Experience

#### 4.3.1 Authenticated Auditor Work Experience

Work experience shall be full time as an employee or contractor in industries with similar scopes of applicability (e.g. automotive, nuclear, maritime, medical devices, other high risk/safety critical industries), with direct involvement in engineering, design manufacturing, quality, or process control.

#### 4.3.2 Authenticated Experienced Auditor Work Experience (standards.iteh.ai)

Work experience shall be full time as an employee or contractor within the ASD industry with direct involvement in engineering, design, manufacturing, quality, or process control within any of the following organizations:

- a) Major Equipment Manufacturer/Integrator Organization An organization that designs, produces, and delivers complete vehicles or systems for ASD applications (e.g. aircraft, ships, submarines, major weapon systems, launchers or spacecraft).
- b) Prime Organization An organization that designs and/or produces a major assembly, major subassembly, or major component of an ASD end item (e.g. cabins, wings, fuselages, propulsion systems, control systems, health monitoring systems, ordnance management systems, radar systems, emergency or backup systems).
- c) ASD Regulatory Agency A civil [e.g. National Aviation Authority (NAA)], military [e.g. Ministry of Defence (MoD)], or space organization [e.g. European Space Agency (ESA), National Aeronautics and Space Administration (NASA), Canadian Space Agency (CSA), Japan Aerospace Exploration Agency (JAXA), China National Space Administration (CNSA)].

#### 4.3.3 Authenticated Experienced Auditor Maintenance Work Experience

Work experience shall be full time as an employee or contractor within an aviation maintenance organization authorized by a civil or military aviation authority with direct involvement in overhaul, disassembling, inspection, testing, replacement, defect rectification, and the embodiment of a modification or repair.

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#### 4.4 Aviation, Space, and Defence Industry Knowledge

**4.4.1** Industry knowledge shall include at a minimum, an understanding of the processes and controls for

- advance product quality planning, a)
- change control, b)
- containment, cause analysis, and corrective action, c)
- configuration, identification, and traceability, d)
- e) critical items and key characteristics,
- design and development, f)
- external provider approval and control, g)
- foreign object damage/debris (FOD) prevention program, h)
- nonconforming material management STANDARD i)
- j) operational risk management,
- k) ASD regulatory requirements,
- standards.iteh.ai) prevention of counterfeit/unapproved parts, 1)
- oSIST prEN 9104-003:2022 m) product safety, https://standards.iteh.ai/catalog/standards/sist/cad5cf5a-
- production part approval process-a34b-707f2f513554/osist-pren-9104-003n)
- production processes and product verification/validation and 0)
- sampling inspection or testing. p)

**4.4.2** In addition for EN 9110 authentication, this knowledge shall also include at a minimum, an understanding of the processes and controls for

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- aviation maintenance regulations, a)
- continued airworthiness management, b)
- development and/or maintenance of technical data, c)
- qualification and certification of persons, d)
- identification and control of serviceable/unserviceable articles or products, e)
- f) parts distribution and rotable pools,
- g) prevention of suspected unapproved parts,
- installation of approved parts and h)