

Combined EASA Part 21–G & AS9100 Training Course

Aeronautical terms and terminology

Common (European) aviation abbreviations

Some fundamental aviation definitions

Aeronautical (type certificated) 'product'

Definitions of aeronautical 'products'

Aeronautical parts and appliances

Definitions of aeronautical parts and appliances

Aeronautical 'articles' and 'critical parts/components'

Team Quiz – Aeronautical terms and their definitions

EASA-US bilateral definition of critical parts/components

AS9100 definitions of critical items, key characteristic and product safety

European Technical Standard Order

Standard parts

Raw material manufacturers

Understanding and quantifying aviation safety

Statistics on air travel accident fatalities 1972 – 2019

Quantifying safety levels

Team exercise – why is aviation safe?

Aviation authorities and official organizations

International Civil Aviation Organization (ICAO)

European Aviation Safety Agency (EASA)

Federal Aviation Administration (FAA)

Bilateral agreements and working arrangements

Competent Authorities (aka NAAs)

Team Quiz – Authorities and official organizations

CAAC – Civil Aviation Administration of China

Military Aviation Authority (MAA)

Overview of the regulations and implementing rules

EASA – the ‘Basic Regulation’

Hierarchy and structure of the implementing rules

Definitions of design and production aeronautical organizations

Initial Airworthiness

Annex I – Part 21

Continuing airworthiness (overview)

Team Quiz – Regulations and implementing rules

Acceptable Means of Compliance, Guidance Material and Easy Access Rules

AMC, GM and ‘Easy Access Rules’

EASA eRules – aviation rules for the 21st century

Team Q & A Session – AMC, GM and ‘Easy Access Rules’

TC – Type Certificate, CS – Certification Specification, TSDS – Type Specification Data Sheets and ETSO – European Technical Standard Order

Article 1 – Scope and definitions

Type Certificate (TC)

CS – Certification Specification for aeronautical ‘products’

TSDS listing and CS examples

CS – Certification Specification for APUs

ETSO – European Technical Standard Order

ETSO – Demonstration of capability

Alternative Procedures to Design Organisation Approval (ADOA)
– *with particular reference for ETSO Authorisation*

List of ETSOs, requirements and authorizations

Team Q & A Session – CS, TSD and ETSO

Production Organization (PO) Eligibility, Production Organization Approval (POA), Scope of work and Design Organization (DO) coordination

Eligibility for POA (Production Organization Approval)

POA regulation and 'eligibility flowchart'

Individual quiz – select the 'appropriate' criteria for your organization

Subpart G – Production Organisation Approval

Production Organisation – 'scope of work' codes

List of approved production organisations – Part-21 G

Approved production organisations and their scope of work

Individual quiz – identification of specific 'scope of work' codes

Coordination between design and production

Link between design data → production data

Example of an 'Arrangement Form'

Individual quiz – design authority identification and 'arrangement'

Making the application for production organisation approval

Production organization approval scope and 'privileges'

Production organization approval (POA) certificates (examples)

High-focus requirements for successful EASA 21-G (POA)

Overview of quality (management) system requirements Part 21-G and AS9100

Definitions and requirements for the quality system

Part 21-G management and 'issues' for the quality system

AS9100 purpose and requirements for the quality system

AS9100 terms and definitions

Understanding AS9100 requirements and planned arrangements

Individual exercise – conformity with the Part 21-G quality system issues

In-depth analysis of Part 21-G and AS9100 Quality (Management) System alignment & requirements [Session 1]

Part 21-G and AS9100 quality system requirements

Part 21-G and AS9100 requirements review – 'gaps' & actions

Identifying compliance 'gaps' and required actions

Part 21-G and AS9100 requirements – required actions – (a)

Part 21-G and AS9100 requirements – required actions – (b) 1. (i)

Part 21-G and AS9100 requirements – required actions – (b) 1. (ii)

Part 21-G and AS9100 requirements – required actions – (b) 1. (iii)

Part 21-G and AS9100 requirements – required actions – (b) 1. (iv)

Understanding identification (configuration) and traceability

Identification of products, parts and appliances

Article marking (products, parts and appliances)

Identification of critical parts and ETSO articles

Identification of APUs (Auxiliary Power Units)

EPA (European Part Approval) marking

In-depth analysis of Part 21-G and AS9100 Quality (Management) System alignment & requirements [Session 2]

Part 21-G and AS9100 requirements – required actions – (b) 1. (v)

Part 21-G and AS9100 requirements – required actions – (b) 1. (vi)

Part 21-G and AS9100 requirements – required actions – (b) 1. (vii)

Part 21-G and AS9100 requirements – required actions – (b) 1. (viii)

Part 21-G and AS9100 requirements – required actions – (b) 1. (ix)

Arrangement (Sample) Form – design/production interface

Part 21-G and AS9100 requirements – required actions – (b) 1. (x)

In-depth analysis of Part 21-G and AS9100 Quality (Management) System alignment & requirements [Session 3]

Part 21-G and AS9100 requirements – required actions – (b) 1. (xi)

Part 21-G requirements – quality assurance function & manager

Definitions of the Accountable Manager

Definitions of Quality Assurance (QA) and Quality Manager

Definitions of the Certifying staff

Record of certifying staff (information to be recorded)

Definitions of Nominated personnel (Responsible managers)

ISO 9001 requirements – quality assurance function & manager

AS9100 requirements – quality assurance function & manager

Team quiz – Part 21-G and AS9100 nominated management/staff

AS9100 requirements for people and competence

In-depth analysis of Part 21-G and AS9100 Quality (Management) System alignment & requirements [Session 4]

Competency and job descriptions

EASA Form 4 – Details of management personnel

Part 21-G and AS9100 requirements – required actions – (b) 1. (xii)

EASA Form 1 – Authorised Release Certificate

Part 21-G and AS9100 requirements – required actions – (b) 1. (xiii)

In-depth analysis of Part 21-G and AS9100 Quality (Management) System alignment & requirements [Session 5]

Part 21-G and AS9100 requirements – required actions – (b) 1. (xiv)

Part 21-G classification of 'findings' (as used by the NAAs)

Actions in response to level 1 and 2 findings

AS9101 classifications of nonconformances

Comparison of Part 21-G with AS9101 grading definitions

Team quiz – classifying nonconformities within an internal audit

Part 21-G and AS9100 requirements – required actions – (b) 1. (xv)

Team quiz – temporary or permanent work transfer

Part 21-G and AS9100 requirements – required actions – (b) 1. (xvii)

Control procedures for any critical parts

Team quiz – control procedures for any critical parts

Demonstrating compliance with 21.A.139 Quality System

Part 21-G Exposition

Production Organisation Exposition (POE)

Exposition requirements – Requirements [21.A.143 (a) & (b)]

Part 21-G Production Organisation Exposition – Checklists

Part 21-G Production Organisation Exposition – Contents

Part 21-G approval requirements and application

Approval requirements – Outline

Reminder – QA, compliance checks and internal audits

Initial Application

EASA Form 50 and completion instructions

Contents of application dossier

Team exercise – things to do to ensure Part 21-G success

Q & A Session