



# AF 9100:2026

## Aerospace Quality Management System

PROCEDURE

### **Scope, Context, Obligations and Applicability**

**AF-PR-9100-002**

FIRST EDITION

30 September 2026 | English master text

# Publication identity and application

| Control                    | Publication value                                                                                                            |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Title                      | Scope, Context, Obligations and Applicability                                                                                |
| Document code              | AF-PR-9100-002                                                                                                               |
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| Controlling source         | AF 9100:2026 — FIRST EDITION — 29 September 2026                                                                             |
| Responsible owner function | Management representative and technical profile owner                                                                        |
| Primary source anchors     | 1, 2, 3, 4, A, AA.1, AA.2                                                                                                    |
| Delivery status            | Prepared implementation companion. Actual approval, adoption, effectivity and operational decisions are recorded separately. |

## Use and document-control boundary

This companion implements the supplied AF 9100 requirement basis without changing the original standard. Its process allocation, examples, checklists and record design are authored implementation material. Actual mission or product limits, specialist procedures, permissions and genuine observations must be completed before consequential use. Applicable source minima and independent decision conditions cannot be reduced by this companion.

The printed edition date identifies the companion series; it is not evidence that later preparation, review or operational decisions occurred on that date. New support codes in this set are proposed allocations for controlled registration. Established AF-IG-9100-001, AF-FAQ-9100-001 and AF-TR-9100-001 identities are retained; earlier files, the corporate master list and ASTRA codes are not overwritten.

Equivalent combined or digital records are permitted when all required fields, relationships, authority and history remain intact. A completed PDF field or typed name is not evidence of an authenticated approval. Blank records in this delivery contain no invented applicant, signature, event or result.

# Contents and reading route

|                                                      |    |
|------------------------------------------------------|----|
| Publication identity and application                 | 2  |
| Contents and reading route                           | 3  |
| 1 Scope, responsibility and source priority          | 4  |
| 2 Trigger, inputs and handover                       | 4  |
| 3 Operating sequence                                 | 4  |
| 4 Decision, interruption and escalation              | 5  |
| 5 Required records and receiving checks              | 5  |
| 6 Worked case and adverse challenge                  | 5  |
| Appendix A — Controlling source and evidence         | 7  |
| Source tables — complete field and decision payloads | 13 |
| Appendix B — Local implementation and release        | 20 |

Select actual scope → complete application criteria → use the applicable procedure and technical book → capture authentic evidence → evaluate every applicable condition → obtain the required independent decision. Document availability does not establish implementation or conformity.

# 1 Scope, responsibility and source priority

Applies to the responsible function and exact evaluated object selected from the source. Use only the duties triggered by actual activity and retained responsibility.

| Boundary         | Required implementation decision                                                                                                                 |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Object and route | Identify ORG, PRD, SVC, PRC, PER, SUB or CAB separately. Combined records do not merge outcomes.                                                 |
| Activity         | Apply source technical modules by performed or retained responsibility, including relevant outsourced work.                                      |
| Authority        | Technical release, employer task permission, independent attestation and statutory authorization remain distinct.                                |
| Source priority  | AF 9100:2026 and all compatible binding obligations control. This companion does not import ASTRA programme rules or external normative schemes. |

# 2 Trigger, inputs and handover

**Trigger:** New scope, new object route, changed responsibility, new site or altered external obligation.

**Accountable process owner:** Management representative and technical profile owner. Actual named appointments and deputies are maintained locally.

| Input to verify                                         | Required output / receiving function                                    |
|---------------------------------------------------------|-------------------------------------------------------------------------|
| Exact request, object and source profile                | Accepted scope and controlled work package, or a reasoned hold/refusal. |
| Current people, authority, data and equipment           | Authorized assignment and evidence-access boundary.                     |
| Original execution, adverse evidence and source history | Attributable result, identified limitations and required action.        |
| Relevant source clocks and actual event times           | Genuine due/completion history and timely recipient communication.      |

# 3 Operating sequence

## 3.1 Identify the real object

Select ORG, PRD, SVC, PRC, PER, SUB or CAB and identify each separate requested conclusion. Record legal entity, actual performer, location, configuration, time boundary and lifecycle responsibility.

## 3.2 Examine context and affected parties

Record internal capability, supply and digital dependencies, user exposure, climate relevance and binding versus monitored expectations. Link each material assumption to an owner and review trigger.

## 3.3 Complete applicability

Review every source clause and normative annex against actual activity and retained outsourced responsibility. Record affirmative triggers and reasoned exclusions; lack of resources, a small workforce or another certificate is not an exclusion rationale.

## 3.4 Resolve obligations and interfaces

Map each applicable technical, customer and legal obligation to the current controlled data and responsible authority. Resolve conflicting obligations before the affected commitment; keep confidential review available through lawful access.

### 3.5 Freeze the application profile

Specify characteristics, units, conditions, methods, uncertainty, sampling, essential failures and permitted claims before examining results. Require technical approval and independently examine important exclusions.

### 3.6 Maintain the scope boundary

Reassess acquisitions, new sites, work transfers and changes in responsibility. Update the requirement index and public wording only after the relevant evaluation; preserve earlier scope and effective-event history.

## 4 Decision, interruption and escalation

An undefined object, unjustified exclusion or unresolved essential criterion holds admission or acceptance.

| State or event                            | Action and limit                                                                                                          |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Evidence valid and criteria met           | Record the bounded result and pass it to the authorized receiving function; do not enlarge scope.                         |
| Evidence missing, invalid or inconclusive | Keep the dependent conclusion not yet demonstrated / HOLD, preserve the reason and define competent next work.            |
| Valid evidence demonstrates failure       | Record nonconformity and protect the affected population; follow actual technical disposition and source status controls. |
| Trigger genuinely absent                  | Record the exclusion and its approved responsibility basis. Resource shortages do not justify N/A.                        |
| Interrupted or changed work               | Preserve prior state and actual configuration; complete impact and revalidation before claiming completion.               |

## 5 Required records and receiving checks

| Document       | Record purpose                                 |
|----------------|------------------------------------------------|
| AF-FR-9100-001 | Application and Scope                          |
| AF-FR-9100-002 | Application Profile and Acceptance Schedule    |
| AF-FR-9100-013 | Context, Processes, Obligations and Objectives |

At handover the receiver checks object, scope, current version, original evidence, open conditions, true event chronology and the action they may authorize. An email sent, field marked complete or invoice paid is not acceptance of that handover.

## 6 Worked case and adverse challenge

**Synthetic scenario:** A distributor starts repairing returned components.

**Required reasoning:** Keep distribution evidence but add actual repair, process, competence, technical-data and release duties. A former distribution certificate does not cover the new service.

| Challenge before local use                       | Expected behavior                                                                                     |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Missing essential input                          | Dependent conclusion remains held; no favorable default.                                              |
| Wrong configuration or performer                 | Detect the mismatch and reassess relevant evidence.                                                   |
| Expired or conflicted authority                  | Block the prohibited assignment or decision; later renewal cannot validate earlier unauthorized work. |
| Failed mandatory condition with high total score | No compensation; preserve the failure and required action.                                            |

| Challenge before local use          | Expected behavior                                                 |
|-------------------------------------|-------------------------------------------------------------------|
| Correction without original history | Reject an apparent closure that erases relevant earlier evidence. |

# Appendix A — Controlling source and evidence

Source: AF 9100:2026, Aerospace Quality Management System, FIRST EDITION, 29 September 2026; supplied 131-page PDF. Source page references below locate the original publication. These excerpts are read with the complete applicable standard; local implementation sequences do not replace it.

## 1.1 Organizations and value chains covered

### **SOURCE p. 9 | Normative when applicable**

1.1(a) This standard applies to organizations that design, develop, manufacture, assemble, integrate, test, inspect, procure, distribute, maintain, operate or support products and services for aviation, space, defense, heavy industry and mission-specific mobility. It includes prime contractors, equipment manufacturers, all supplier tiers, research organizations, engineering services, software providers, logistics providers and support facilities.

1.1(b) The scope includes civil and military aircraft, rotorcraft, unmanned systems, advanced air mobility, satellites, launch and ground systems, orbital and surface infrastructure, land and maritime defense platforms, industrial machinery, process plant and associated infrastructure. Automotive-derived products are included when used for defense missions, space exploration, launch-site support or other mission-specific applications. General-road homologation and specialized mission approval remain distinct responsibilities.

## 1.2 Products, services, processes and people

### **SOURCE p. 9 | Normative when applicable**

1.2(a) Covered outputs include hardware, materials, electronics, embedded and application software, artificial-intelligence models, datasets, technical information, digital and professional services, training affecting competence, maintenance actions and integrated systems of systems. Covered delivery resources include personnel, special processes, subcontractors, sub-tier suppliers, laboratories, inspection and assessment providers.

1.2(b) The standard is technology-neutral. An unlisted material, energy source, computing paradigm, production method or autonomous capability shall be included in applicability and hazard analysis when its effects fall within scope. A technology not named in this edition is not exempt from assurance.

1.2(c) The conformity object shall be selected explicitly using Annex AA. Organizational conformity, product conformity, service conformity, process qualification, personnel certification, employer task authorization, supplier qualification and assessment-body competence are distinct conclusions. Evidence may be reused when its relevance and validity are established, but no conclusion automatically grants another.

**Required evidence:** Conformity-object register; product and service families; process and personnel scope; external-provider map; selected route and technical profile.

## 1.3 Scope statement and mandatory applicability decision

### **SOURCE p. 9 | Normative when applicable**

1.3(a) An organization shall maintain a controlled scope identifying legal entities, sites, remote functions, products, services, processes, lifecycle responsibilities and exclusions. It shall complete Annex A before claiming conformity. Shared services and outsourced activities shall be included where responsibility remains with the organization.

1.3(b) The organizational route applies Clauses 1–10 and 22, with the relevant technical modules in Clauses 11–21 and object or provider controls in Clauses 23–28. A requirement may be excluded only where the activity and associated responsibility are genuinely absent and the exclusion cannot impair an assured outcome. Outsourcing, a small workforce or an existing certificate does not by itself justify exclusion.

1.3(c) For a product, service, process, person, supplier or assessment-provider route, Annex AA identifies the applicable evaluation boundary. A personnel applicant shall demonstrate the defined role competences, not ownership of a corporate management system. The body operating that route shall nevertheless fulfill its own governance, impartiality and evidence obligations.

1.3(d) Where product design responsibility is absent, supplied design data, manufacturing-process design, technical changes and error escalation shall remain controlled. Where only distribution occurs, authenticity, preservation, traceability and customer flow-down remain required. Incompatible obligations shall be escalated and the dependent work held until resolved.

**Required evidence:** Approved scope; object-route selection; Annex A matrix; exclusions with evidence; interface owners; review triggers and scope-change history.

## 1.4 Boundaries of conformity and authorization

### SOURCE p. 10 | Normative when applicable

1.4(a) Conformity to this standard shall not be represented as a type certificate, airworthiness approval, launch license, defense authorization, vehicle homologation, marine class approval or statutory plant approval. Mandatory authorizations and program-specific technical requirements remain applicable. A product claim requires an evaluated product scope; an organizational certificate alone does not approve every output.

1.4(b) Membership, sponsorship, committee participation, awards and training attendance do not establish conformity. AF marks and AF-authorized scheme operation require actual written authorization. Annexes AA-AJ define this standard's assessment rules; their publication does not automatically authorize a body, accredit a laboratory or certify an applicant.

1.4(c) The designation AF 9100:2026 identifies an independent AF publication. Use of that identifier shall not imply adoption, sponsorship or recognition by another publisher, regional standards system or public authority.

**Required evidence:** Accurate claims and certificate scope; actual authorizations; mark permissions; separation of technical and statutory approvals.

## 1.5 System boundaries and hazardous domains

### SOURCE p. 10 | Normative when applicable

1.5(a) The organization shall identify interactions among product safety, occupational safety, environmental protection, security, cybersecurity and mission effectiveness. Responsibilities shall cover both intended use and reasonably foreseeable misuse or abnormal conditions. Approval of one discipline shall not be interpreted as approval of the others.

1.5(b) For controlled defense technology, energetic materials, radiological sources or other restricted activities, this standard specifies governance and assurance responsibilities only. Detailed operating procedures, design criteria, access controls and approvals shall be established by appropriately authorized specialists under applicable obligations. No clause provides instructions for weapon construction or employment.

## 2.1 Self-contained AF requirement basis

### SOURCE p. 10 | Normative when applicable

2.1(a) An AF 9100:2026 conformity decision shall evaluate all applicable requirements of this edition, including the triggered normative annexes and the approved object-specific application profile. A summary, checklist or training presentation shall not replace the complete applicable requirement set.

2.1(b) The responsible organization or scheme operator shall provide controlled access to this edition at the point of use. AF clauses shall not be represented as identical to an unevaluated external scheme. Compliance evidence shall be traced to the actual AF requirement and the actual evaluated object.

**Required evidence:** Controlled edition; applicable-requirement register; application profile; evidence mapping.

## 2.2 Controlled program and application profile

### SOURCE p. 10 | Normative when applicable

2.2(a) Before evaluation or acceptance, the responsible technical authority shall approve an application profile defining the object, configuration, intended use, operational domain, applicable obligations, measurable criteria, verification methods, uncertainty treatment, sampling rationale and release limits. The profile shall be detailed enough for different competent evaluators to reach comparable conclusions.

2.2(b) Product tolerances, loads, environmental qualification levels, service performance limits and role-specific practical tasks shall be derived from the actual application. This standard does not invent one engineering limit for unrelated aircraft, spacecraft, vehicles, ships, plant or occupations. Absence of an adequate profile shall block a claim requiring that profile.

2.2(c) A controlled obligation register shall identify binding law, customer commitments, approved technical data, test procedures and authority decisions with their applicable editions, owners and change triggers. Such inputs may be legally or contractually necessary without becoming external normative references in this AF publication.

**Required evidence:** Approved application profile; technical rationale; criteria and methods; obligation register; change controls.

## 2.3 Precedence and conflict resolution

### **SOURCE p. 10 | Normative when applicable**

2.3(a) Applicable law and competent-authority conditions shall not be waived by AF permission, customer agreement, risk acceptance or internal concession. Compatible binding requirements shall all be fulfilled. Where obligations cannot jointly be met, affected work and claims shall be held until a documented lawful resolution is approved by the responsible technical and contractual authorities.

2.3(b) The standard's requirements and triggered annexes shall be read together. Annex AD governs assessment decision rules; Annex AG governs scheme time limits; Annex AB governs assessor competence; Annex AE governs personnel assessment; Annex Y governs publication control. These rules cannot weaken safety, technical acceptance or legal obligations elsewhere in the standard.

2.3(c) An internal procedure, purchasing instruction, automated workflow or contract profile shall not remove an applicable AF requirement. More demanding program requirements may be added. A conflict shall be recorded, not resolved by silently selecting the less demanding provision.

**Required evidence:** Conflict register; affected scope; technical and contractual resolution; controlled amendments to working instructions.

## 2.4 Normative annexes and evidence conventions

### **SOURCE p. 11 | Normative when applicable**

2.4(a) The status stated at each annex heading controls its use. Normative annexes impose requirements when triggered by activity or assessment route. Annex N has separately identified normative and informative portions. Other informative annexes explain methods and examples but do not create universal acceptance thresholds.

2.4(b) Equivalent record formats are permitted where every required field, relationship, approval and integrity control is retained. "Not applicable", "accepted risk" and "covered by supplier" are not evidence without a justified applicability or decision record. Synthetic example values shall never be copied into a real record as actual observations.

2.4(c) A compound requirement shall be assessed against every applicable condition. Checklist compression shall not remove conditions. A requirement is not satisfied merely because a document exists: appropriate implementation and outcome evidence are also required.

**Required evidence:** Annex applicability; complete evidence fields; evaluated conditions; justified non-applicability.

## 2.5 Edition, time and change control

### **SOURCE p. 11 | Normative when applicable**

2.5(a) The publication identifier is AF 9100:2026; the edition is First Edition; the publication date is 29 September 2026. Amendments shall be uniquely identified and controlled under Annex Y. An edition designation does not attest that a particular organization, product or person has passed assessment.

2.5(b) Scheme time limits shall be interpreted under Annex AG. Adoption dates in contracts, transition dates in future amendments and effective dates of individual authorizations shall be recorded separately. No date shall be backdated to hide a gap in conformity status.

**Required evidence:** Edition and amendment register; adoption record; actual decision dates and status history.

## 2.6 Engineering judgment and reproducible decisions

### **SOURCE p. 11 | Normative when applicable**

2.6(a) Where a requirement calls for proportionate controls, the organization shall record the consequence, uncertainty, selected method and technical rationale supporting that judgment. Competent discretion shall not be used to waive a defined minimum, omit an essential control or approve inaccessible evidence.

2.6(b) Calculations used for acceptance shall have verified inputs, compatible units, controlled algorithms and documented applicability assumptions. A successfully executed calculation or a digitally signed record does not by itself demonstrate a valid physical model or a true original observation.

**Required evidence:** Technical judgments; verified computations; assumptions and limitations; independent review when required.

### 3.1 Interpretation and evidence convention

#### **SOURCE p. 14 | Normative when applicable**

3.1(a) A requirement identifier consists of the subclause and its lettered paragraph, for example 8.1.3(a). The complete paragraph, including each condition joined within it, is applicable unless an approved scope decision establishes otherwise. Evidence notes identify minimum record content, not the only permissible proof of implementation.

3.1(b) “Documented” information may be digital, physical or a controlled combination. A database, model, signed workflow or automated log may satisfy a record requirement if identity, integrity, access, retention and retrievability are demonstrated. A screenshot without provenance is not sufficient evidence of the underlying transaction.

### 4.1 Context, operating environment and emerging conditions

#### **SOURCE p. 14 | Normative when applicable**

4.1(a) The organization shall determine internal and external conditions affecting its ability to deliver conforming and dependable outputs. The review shall include mission environments, technology maturity, human capability, infrastructure, supply dependencies, market changes, public-interest effects and applicable legal and contractual conditions. Material assumptions shall have owners and review triggers.

4.1(b) The organization shall explicitly assess whether climate change or climate-related disruption is relevant to product conformity, operational environments, infrastructure, supply continuity or interested-party requirements. It shall record the decision, evidence and necessary actions. The AF requirement extends this review to physical and transition effects without imposing a universal emissions target.

4.1(c) Context shall be reviewed at planned intervals and following a significant incident, acquisition, mission change, relocation, severe supply disruption or relevant change in obligations. A context review shall result in decisions affecting plans or controls where necessary, not only a static list of factors.

**Required evidence:** Context register; climate-relevance decision; assumptions; review minutes; resulting changes to objectives, hazards or controls.

### 4.2 Interested parties and public-interest interfaces

#### **SOURCE p. 14 | Normative when applicable**

4.2(a) The organization shall identify parties whose requirements or exposure can affect the system’s outcomes, including customers, end users, operators, workers, suppliers, authorities and persons exposed to credible product consequences. It shall determine which requirements are binding, which are adopted commitments and which are information to monitor.

4.2(b) Conflicting expectations shall be resolved through a documented decision process. Customer preference shall not override a binding safety or legal requirement. Community or user concerns relevant to product use shall be assessed on evidence, while access to sensitive or controlled information shall remain restricted to authorized recipients.

**Required evidence:** Interested-party register; obligation classification; communication responsibilities; conflict resolutions.

### 4.3 System scope, boundaries and responsibility

#### **SOURCE p. 14 | Normative when applicable**

4.3(a) The scope and applicability matrix shall reflect actual responsibilities at every lifecycle stage, including outsourced design, remote engineering, cloud services, off-site maintenance and customer-site work. Responsibility for an interface shall be assigned to a named role on each side; shared responsibility shall not leave an unowned decision.

4.3(b) Changes to scope shall undergo a documented capability and risk review before new work is accepted. The organization shall verify personnel, facilities, technical data, authorizations and assurance capacity for the changed scope. Public statements and any assessment certificate shall be updated when the controlled scope changes.

**Required evidence:** Scope statement and Annex A matrix; interface agreements; new-capability review; updated external claims.

## 4.4 Processes and their interactions

### **SOURCE p. 15 | Normative when applicable**

4.4(a) The organization shall establish and maintain an integrated process model showing sequence, inputs, outputs, interfaces and feedback. For every process it shall assign an owner, determine resources, define operating and acceptance criteria, identify relevant risks and opportunities, and establish measures of both process performance and outcome effectiveness.

4.4(b) The organization shall control cross-functional handovers so that requirements, configuration, unresolved issues and acceptance responsibilities remain explicit. Process measures shall include failure and escape signals where relevant, rather than relying solely on activity counts or schedule achievement.

4.4(c) Documented operating information shall be maintained, and evidence of execution shall be retained. The organization may use a quality manual or equivalent navigable system; the chosen form shall allow personnel and assessors to locate current requirements, responsibilities and records without reconstructing them from personal knowledge.

**Required evidence:** Process architecture; process-owner definitions; operating criteria; interaction records; process metrics and improvement actions.

## 4.5 Obligation and commitment register

### **SOURCE p. 15 | Normative when applicable**

4.5(a) The organization shall maintain an obligation register linking each applicable external obligation to affected products, sites, processes and accountable owners. The register shall identify evidence of fulfillment and the mechanism for detecting relevant changes. Subscription to an alert service alone shall not constitute an assessment of applicability.

4.5(b) Where access restrictions limit an assessor's ability to view evidence, the organization shall arrange an authorized alternative that preserves competence and traceability. Restricted information shall not be replaced by an unsupported statement of compliance. Unresolved access limitations shall be identified in the assessment outcome.

**Required evidence:** Controlled obligation register; change assessments; authorized evidence-access arrangements.

## A.1 Required applicability process

### **SOURCE p. 50 | Normative when applicable**

A.1(a) The organization shall identify each product or service family, site and lifecycle role; assess the activities and effects below; select all triggered clauses and normative annexes; and record exclusions with evidence. A module applies when an activity is performed directly or when the organization retains responsibility for an externally performed activity.

A.1(b) The matrix shall be approved by the management representative and relevant technical authorities. It shall be reviewed at least within management review and whenever scope, configuration, technology, suppliers or obligations materially change. Applicable legal and contractual obligations remain binding; AF tailoring shall not remove them.

A.1(c) For a PER route, the individual scope record shall select Clause 26 and Annex AE, plus Annex AB for an assessor credential and the relevant technical competences from the job profile. The individual is not required to operate the organizational core. The scheme operator is assessed separately for its organizational and provider duties.

**Required evidence:** Versioned activity matrix; product/site coverage; reasons for exclusions; technical approval; review triggers.

## A.2 Minimum scope-record fields

### **SOURCE p. 51 | Normative when applicable**

A.2(a) Each matrix row shall contain entity, site, product or service, customer or mission, lifecycle responsibility, triggered clause, applicability decision, reason, evidence reference, accountable owner and approval date. Remote functions and critical suppliers shall be linked to the relevant row.

A.2(b) An exclusion shall not be accepted when the activity is merely subcontracted. For a design exclusion, the record shall identify the actual design authority and demonstrate controls over supplied design data, change requests and escalation of errors.

**Required evidence:** Completed matrix with each mandatory field and approved interface responsibilities.

## AA.1 Object selection and the scope tuple

### **SOURCE p. 103 | Normative when applicable**

AA.1(a) Before accepting an application, the scheme operator shall select one or more routes from Table AA-1. Each route shall have a separate evaluation boundary and conclusion. A combined assessment may share relevant evidence, but shall not merge different conformity objects into an ambiguous certificate.

AA.1(b) The scope tuple shall identify object type; applicant and responsible legal entity; product, service, process, person or provider identity; sites and remote functions; configuration or role version; lifecycle responsibilities; criticality; technical modules; application profile; evaluated period; and exclusions or restrictions. Empty fields shall be justified rather than omitted silently.

**Required evidence:** Application review; selected routes; completed scope tuple; responsibility and applicability matrix.

## AA.2 Application profile requirements

### **SOURCE p. 103 | Normative when applicable**

AA.2(a) The profile shall define the evaluated object, version, intended use, operating or task domain, characteristics or competences, acceptance criteria, methods, samples, uncertainty or scoring rules, required evidence, critical failures, surveillance and change triggers. The technical profile owner shall be identified and competent to approve those criteria.

AA.2(b) A PRD profile shall state relevant performance, environmental, safety, interface and life criteria. A SVC profile shall state delivery outcomes and observation windows. A PRC profile shall state essential variables and qualified ranges. A PER profile shall state tasks, prerequisites, knowledge and practical demonstration. SUB and CAB profiles shall state the actual work or assessment capability.

AA.2(c) The profile shall be approved before evaluation. It may add requirements but shall not waive AF minima or mandatory obligations. Where methods or limits are missing, the application shall be held until competent technical definition is available; broad references to “good quality” or “all aerospace uses” are not adequate criteria.

**Required evidence:** Approved profile with technical criteria; method and decision matrix; critical-failure list; profile change history.

# Source tables — complete field and decision payloads

**Table 3-1 — Core terms**

Source p. 11, 12, 13 | Illustrative or explanatory source table

| Term                            | Meaning within this standard                                                                                                                                         |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Accountable executive           | Person with authority to allocate resources and accept organizational responsibility for the system; delegating tasks does not remove accountability.                |
| Assurance case                  | Structured argument linking a specific claim, operating context, reasoning, evidence, limitations and residual risks.                                                |
| Assurance independence          | Freedom and authority to challenge or decide without being subordinate to the delivery pressure or work being assessed; the necessary degree depends on criticality. |
| Baseline                        | Approved set of identifiable requirements, designs, process definitions, data or configurations under change control.                                                |
| Critical item                   | Item, function, characteristic, software element or process whose failure or variation requires special controls because of its consequence.                         |
| Key characteristic              | A measurable attribute whose variation materially affects fit, function, performance, life or producibility and therefore requires controlled variation.             |
| Special requirement             | A requirement with elevated difficulty or risk of fulfillment, such as immature technology, demanding tolerance or constrained delivery.                             |
| Safety-critical characteristic  | A characteristic connected to a hazardous consequence and therefore requiring an explicit safety-related control and verification rationale.                         |
| Operational domain              | Defined environment, mission, users, interfaces, modes, timing and constraints within which a function is intended to operate.                                       |
| Mission assurance               | Coordinated activities supporting justified confidence that mission objectives and associated constraints can be achieved.                                           |
| Residual risk                   | Risk remaining after implemented controls, with stated assumptions, evidence, owner and acceptance authority.                                                        |
| Risk acceptance                 | Authorized decision about a stated residual risk; not the absence of information or a substitute for a mandatory requirement.                                        |
| Opportunity                     | Potential beneficial outcome considered through a deliberate feasibility and benefit assessment, distinct from an adverse-risk register.                             |
| Special process                 | Process for which all relevant output characteristics cannot be adequately verified by subsequent inspection alone.                                                  |
| First article verification      | Documented verification that the intended production configuration and route can produce an item satisfying its specified characteristics.                           |
| Configuration status accounting | Recorded history and current status of baselines, approved changes, deviations and actual item or service configurations.                                            |
| Concession                      | Authorized permission for a specifically bounded departure, without waiving applicable legal obligations or unapproved safety constraints.                           |
| Counterfeit or suspect item     | Item or record whose claimed identity, origin, condition or approval is intentionally misrepresented, or for which credible evidence raises that concern.            |
| Traceability                    | Ability to connect an output with its applicable requirements, origin, processing, evidence, configuration and authorized disposition.                               |

| Term                          | Meaning within this standard                                                                                                                                   |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Digital thread                | Controlled connections among lifecycle information; a particular software architecture or vendor platform is not mandated.                                     |
| Digital twin                  | A model linked to an identified physical or operational entity and maintained for a defined decision purpose, with validated limits of credibility.            |
| Model of record               | Controlled model version authorized as an authoritative input for a stated purpose; not necessarily valid outside that purpose.                                |
| Out-of-distribution condition | Input or context insufficiently represented in a model's demonstrated operating basis, potentially invalidating expected performance.                          |
| Software bill of materials    | Structured inventory of software components and relevant versions, dependencies, provenance and identification.                                                |
| Measurement uncertainty       | Parameter characterizing the dispersion of values reasonably attributable to a measurand under an identified model.                                            |
| Decision rule                 | Pre-agreed method describing how measurement uncertainty and risk are considered when determining conformity.                                                  |
| Nonconformity                 | Failure to fulfill an applicable requirement; an improvement suggestion alone is not a nonconformity.                                                          |
| Containment                   | Immediate action to prevent further impact or escape while the extent and causes of a problem are being determined.                                            |
| Correction                    | Action addressing a detected nonconformity in a particular output or situation.                                                                                |
| Corrective action             | Action addressing substantiated causes to prevent recurrence or occurrence elsewhere, with effectiveness verification.                                         |
| Release authority             | Identified competent person or controlled function authorized to release an output against defined acceptance conditions.                                      |
| Service-life limit            | Approved bound on time, cycles, exposure or condition that shall not be exceeded without an authorized engineering disposition.                                |
| Technology readiness evidence | Documented demonstration of a capability in a specified environment; a readiness label alone is not sufficient evidence.                                       |
| Foreseeable misuse            | Use or behavior reasonably predictable in the intended context even though not intended by the designer.                                                       |
| AF criticality category       | Internal tailoring category C0 to C3 in Annex B; not an equivalence to any external design assurance or safety integrity classification.                       |
| Conformity object             | Precisely identified organization, product, service, process, person, supplier scope or assessment-provider capability to which an evaluation and claim apply. |
| Application profile           | Approved definition of an object, intended use, scope, technical or competence criteria, evaluation methods and limitations required by Annex AA.              |
| Scheme owner                  | AF, responsible for the controlled rule set and governance of the AF scheme; not necessarily the body performing evaluations.                                  |
| Scheme operator               | Body with actual written authority to operate a stated AF assessment route and responsibility for its implementation.                                          |
| Evaluation                    | Examination of evidence by audit, inspection, testing, observation, interview, examination or analysis against specified requirements.                         |
| Review                        | Competent examination of the sufficiency and consistency of evaluation evidence before the conformity decision.                                                |

| Term                                       | Meaning within this standard                                                                                                                                                  |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conformity decision                        | Accountable determination to grant, refuse, maintain, restrict, suspend, restore, renew or withdraw a bounded attestation.                                                    |
| Auditor / lead auditor                     | Person authorized to conduct audits / person additionally authorized to lead and integrate an audit team's work.                                                              |
| Technical expert                           | Person providing verified domain expertise who does not automatically possess audit leadership or conformity decision authority.                                              |
| Personnel certification                    | Independent attestation that a person has demonstrated specified role competence within a defined scope and period.                                                           |
| Task authorization                         | Employer or responsible technical authority permission to perform a defined task on specified work; distinct from certification or a statutory license.                       |
| Subcontractor / sub-tier provider          | External performer of assigned work / a further provider used by that performer; retained accountability does not disappear through these tiers.                              |
| Accreditation                              | A distinct, authorized competence attestation for a conformity-assessment body's defined activities, following the CAB route; not organizational certification or membership. |
| Indeterminate measurement decision         | A result for which the selected uncertainty-aware rule demonstrates neither conformity nor nonconformity; acceptance is held unless valid further evidence resolves it.       |
| Critical / major / minor finding           | Finding classifications defined in Annex AD; they do not replace the separate technical hold decision.                                                                        |
| Suspension / withdrawal                    | Temporary prohibition on use of an attestation / termination of that attestation; both retain an auditable status history.                                                    |
| Restriction                                | A formally evaluated reduction or limitation of scope; not a means of concealing a systemic failure affecting the remaining scope.                                            |
| Ongoing attestation / instance attestation | A time-limited claim maintained through surveillance / a claim confined to an identified lot, serial, service event or evaluated instance.                                    |

## Table 3-2 — Abbreviations

Source p. 13, 14 | Illustrative or explanatory source table

| Abbreviation     | Meaning                                                                                            |
|------------------|----------------------------------------------------------------------------------------------------|
| AI / ML          | Artificial intelligence / machine learning                                                         |
| BOM / SBOM       | Bill of materials / software bill of materials                                                     |
| CAPA / NCR       | Corrective action management / nonconformity record                                                |
| COTS             | Commercial off-the-shelf                                                                           |
| EMC / EMI / ESD  | Electromagnetic compatibility / interference / electrostatic discharge                             |
| FAI / FMEA / FTA | First article inspection or verification / failure mode and effects analysis / fault tree analysis |
| FOD              | Foreign object debris or damage, as specified by context                                           |
| MRO              | Maintenance, repair and overhaul                                                                   |
| MBSE             | Model-based systems engineering                                                                    |
| MTBF / MTTR      | Mean time between failures / mean time to repair                                                   |

| Abbreviation | Meaning                                            |
|--------------|----------------------------------------------------|
| NDT          | Non-destructive testing                            |
| ODD          | Operational design domain                          |
| OT           | Operational technology                             |
| QMS          | Quality management system                          |
| RAM          | Reliability, availability and maintainability      |
| RPO / RTO    | Recovery point objective / recovery time objective |
| SPC          | Statistical process control                        |
| UAS          | Unmanned aircraft system                           |
| V&V          | Verification and validation                        |

## Table A-1 — Module selection rules

Source p. 50, 51 | Required structure when applicable

| Activity or effect                               | Required AF coverage                                    | Additional evidence focus                                                        |
|--------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------|
| All organizations                                | Clauses 1–10; 22; relevant 23–28; Annexes A, B, D, V, W | Scope, processes, competence, evidence integrity, evaluation and claims.         |
| System design or integration                     | 11; relevant parts of 8.3; Annex C                      | Requirements allocation, interfaces, lifecycle gates and assurance case.         |
| Software or programmable hardware                | 12; 13; Annexes N, O                                    | Controlled digital lifecycle, configuration, verification and security.          |
| AI in product, inspection or engineering         | 12.4–12.7; Annex N                                      | Use case, data lineage, independent evaluation and bounded authority.            |
| Connected product, OT or remote service          | 13; Annex O                                             | Trust boundaries, identity, updates, incident response and recovery.             |
| Space mission or space-purpose equipment         | 14; Annex P                                             | Mission environment, ground/space interfaces, end-of-life and remote assurance.  |
| Aircraft, UAS, aviation equipment or services    | 15; Annex Q                                             | Approval interfaces, installation, operational domain and continued support.     |
| Defense land, maritime, air or multi-domain work | 16; Annex R                                             | Contract obligations, controlled information, integration and lifecycle support. |
| Defense automotive or mission vehicles           | 16.3; relevant 12–13, 18–21; Annex R                    | Duty cycle, modified-platform effects, road/mission approval boundaries.         |
| Lunar or planetary mobility                      | 14.7; relevant 11–13, 18–21; Annex P                    | Space-environment qualification; terrestrial qualification limitations.          |

| Activity or effect                               | Required AF coverage                       | Additional evidence focus                                                                   |
|--------------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------------|
| Industrial machinery, plant or infrastructure    | 17; Annex S                                | Design basis, code interfaces, installation, commissioning and integrity.                   |
| Materials, manufacture or special processing     | 18; 8.5; Annexes K, L                      | Process qualification, essential variables, genealogy and first article evidence.           |
| Energy storage, fuel or propulsion               | 19; relevant sector annex                  | Coupled hazards, operating limits, degradation and emergency interfaces.                    |
| External provision or supply responsibility      | 8.4; Annex J                               | Source approval, flow-down, delegated verification and authenticity.                        |
| Test, calibration or inspection service          | 7.6–7.7; 8.3.4; Annex M                    | Method validity, uncertainty, traceability and decision rules.                              |
| Maintenance, overhaul, distribution or logistics | 21; Annex T                                | Capability, current data, life status, custody and authorized release.                      |
| Lifecycle environmental or human-system effects  | 20; relevant sector requirements           | Impact boundaries, human factors, credible claims and retirement controls.                  |
| Novel or previously unlisted activity            | 6.6; 11; 20.6; applicable existing modules | Hazard-driven extension; evidence gaps; approved technical basis.                           |
| Product or integrated-system claim               | 23; Annexes AA, AD, AG; relevant K–S       | Exact configuration/family and technical profile; qualification versus instance acceptance. |
| Service conformity claim                         | 24; Annexes AA, AD, AG; relevant T         | Service boundary, outcomes, capacity, continuity and observed delivery.                     |
| Process qualification claim                      | 25; Annexes AA, AD, AG; relevant L         | Qualified process window, site, equipment, essential variables and monitoring.              |
| Personnel competence or task authorization       | 26; Annex AE; AB for assessment roles      | Role and task criteria, demonstrated competence and bounded authorization.                  |
| Subcontracted or multi-tier work                 | 27; Annexes AF, J                          | Accountability, actual performer, flow-down, changes, evidence and exit.                    |
| Assessment, inspection or laboratory operation   | 28; Annexes AB, AH; applicable AA–AI       | Body competence, impartiality, valid methods and independent decisions.                     |

**Table A-2 — Illustrative scope decisions, not actual AF approvals**

Source p. 51 | Illustrative or explanatory source table

| Organization example                                  | Decision                                                                           | Reason and retained controls                                                                                                              |
|-------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Build-to-print aircraft bracket manufacturer          | Own product design not performed; manufacturing process design remains applicable. | Customer holds design authority. Apply 8.3 data controls, 8.4, 8.5, 15 and 18; escalate drawing errors and unauthorized changes.          |
| Satellite battery supplier                            | Space, software/security and energy modules apply.                                 | Product includes embedded control and contributes to mission hazards. Apply 11–14, 18–20 and relevant normative annexes.                  |
| Defense vehicle integrator using a commercial chassis | Vehicle and defense modules apply to the modified configuration.                   | Chassis evidence does not establish payload integration or mission-duty suitability. Apply 16.3 and energy/software modules as triggered. |
| Stockist splitting sealed fastener lots               | Distribution and authenticity controls apply; no manufacturing claim.              | Preserve source/lot identity, certificate linkage, quantity and storage. Any rework would trigger additional manufacturing controls.      |
| Software-only inspection-service provider             | Digital and measurement-method controls apply.                                     | No physical manufacture, but algorithms influence acceptance. Apply 7.7, 7.12, 12, 13 and verification-service controls.                  |

**Table AA-1 — AF conformity objects and decision boundaries**

Source p. 103 | Required structure when applicable

| Route / object         | Applicable evaluation basis                                                                                                     | Permitted conclusion and boundary                                                                                |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| ORG — Organization     | Clauses 1–10 and 22; triggered 11–21 and 23–28; organizational implementation and outcomes.                                     | Defined management and assurance system. Does not approve every product or certify every employee.               |
| PRD — Product / system | Clause 23; product profile; relevant technical, qualification and acceptance requirements; controlled production where ongoing. | Identified product, configuration, family, lot or serial against stated criteria. No implied statutory approval. |
| SVC — Service          | Clause 24; defined outcomes, delivery boundary, period, interfaces, competence and continuity.                                  | Specified service or service event, not an unrestricted approval of the provider's other services.               |
| PRC — Process          | Clause 25; relevant Annex L; essential variables, qualification, scope, monitoring and output relationship.                     | Process capability within the qualified conditions. Not automatic acceptance of all output.                      |
| PER — Person           | Clause 26 and Annex AE; approved job profile; Annex AB for assessment-role credentials.                                         | Demonstrated competence for a defined role. Employer task authorization and required licenses remain separate.   |

| Route / object            | Applicable evaluation basis                                                                                    | Permitted conclusion and boundary                                                                         |
|---------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| SUB — External provider   | Clause 27; Annexes J and AF; actual site, supplied work and sub-tier controls.                                 | Qualification for a defined supply scope. Conditional development status is not a conformity certificate. |
| CAB — Assessment provider | Clause 28 and Annex AH; role-specific competence, methods, witnessing, impartiality and independent decisions. | Defined assessment capability under actual AF authorization. ORG certification is not accreditation.      |

## Table AA-2 — Minimum profile fields

Source p. 103, 104 | Required structure when applicable

| Field group              | Required information                                                                                                    |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Identity and ownership   | Profile ID, revision, route, owner, technical approver, issue date and affected claims.                                 |
| Object and domain        | Exact object/configuration, sites, relevant users, operating or task conditions and exclusions.                         |
| Obligations and criteria | Requirement IDs, quantitative limits or defined attributes, legal and customer constraints, essential controls.         |
| Evaluation design        | Methods, test conditions, samples, representativeness, uncertainty, validity checks, required independence.             |
| Decision                 | Pre-agreed passing rules, critical failures, treatment of unavailable evidence and nonconformities, decision authority. |
| Continuing basis         | Surveillance, expiry or instance boundary, change triggers, renewal and retained support obligations.                   |
| Records and claims       | Required reports, retention, authorized public statement, privacy and mark restrictions.                                |

## Appendix B — Local implementation and release

| Readiness condition          | Evidence before consequential use                                                                                                                     |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Authority and responsibility | Actual legal operator, owner, competent technical authority, independent reviewer and permitted result class are recorded.                            |
| Scope and criteria           | Object, configuration, site, period, trigger, every technical value or observable attribute, units and prospective approval are complete.             |
| Evidence and methods         | Original accessible evidence, representative observations, valid methods, uncertainty, adverse cases and limitations support the intended conclusion. |
| People and independence      | Competence is current for each task; genuine conflicts, relevant prior work and needed separation have been checked.                                  |
| Records and tools            | Field meanings, unique IDs, original history, access, retention, recovery and actual deployed workflows have passed local validation.                 |
| Decision and public use      | All relevant blockers are resolved; required independent decision and written permissions precede the exact public claim.                             |
| Continuity and handover      | Receiving custody, unresolved duties, corrections and historical decisions survive transfer, retirement or provider closure.                          |

Record the completed local readiness and actual authorization in AF-FR-9100-032 or an equivalent controlled record. Preserve the unchanged source standard and each earlier decision basis. A blocked activity may continue only within a genuinely permitted development boundary, not as a provisional conformity certificate.