



AF 9100:2026

Aerospace Quality Management System

PROCEDURE

Assessment Planning, Audit Time, Site Coverage and Remote Work

AF-PR-9100-031

FIRST EDITION

30 September 2026 | English master text

Publication identity and application

Control	Publication value
Title	Assessment Planning, Audit Time, Site Coverage and Remote Work
Document code	AF-PR-9100-031
Edition / language	FIRST EDITION / English master text
Companion edition identity	30 September 2026
Controlling source	AF 9100:2026 — FIRST EDITION — 29 September 2026
Responsible owner function	Lead evaluator
Primary source anchors	22.3, V, AC, AA.3
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	11
Appendix B — Local implementation and release	12

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: Initial, renewal, surveillance, special or extension assessment planning.

Accountable process owner: Lead evaluator. 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 Build the actual coverage plan

Identify route, scope, sites, shifts, processes, criticality, methods, languages, adverse history and necessary witnesses. Assign technical specialists to the tasks they will actually perform.

3.2 Calculate ORG floors correctly

Use Annex AC effective personnel bands, highest criticality and distinct complexity triggers. Apply site and stage floors, then add resources necessary for genuine coverage; other routes use their technical work breakdown.

3.3 Apply site rules

Evaluate every initial and renewal ORG site. Restrict reduced surveillance to eligible homogeneous C0/C1 pools, with central and mandatory locations added, controlled rotation and the required random portion.

3.4 Qualify remote methods

Document identity, live evidence, confidentiality, configuration, access, recording permission and representation. Add physical witnessing where remote review cannot establish the required capability.

3.5 Record productive execution

Count eight-hour evaluator-days only for actual necessary work. Exclude travel, administration, final reporting, translation delays and independent review; avoid double-counting passive observers or the same task.

3.6 Close actual coverage and report

Preserve plan changes, incomplete observations, adverse results and sampling limits. Add work or restrict the conclusion when necessary; issue the report under the source timetable without resetting notified findings.

4 Decision, interruption and escalation

Insufficient task, site or method coverage prevents a complete evaluation recommendation.

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-9100-004	Audit and Evaluation Plan
AF-FR-9100-003	Competence, Independence and Assignment
AF-FR-9100-005	Technical Result and Decision Rule
AF-FR-9100-028	Internal Audit, Management Review and Improvement

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: Nine eligible low-consequence sites are proposed for surveillance using three sampled sites.

Required reasoning: The source formula requires five eligible sites, at least two random, plus central and separately mandatory locations. Three is not sufficient under the uploaded rule.

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.

Challenge before local use	Expected behavior
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.
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.

22.3 Criteria, sampling and findings

SOURCE p. 41 | Normative when applicable

22.3(a) The evaluation plan shall identify criteria, locations, periods, methods and sampling limitations. Audits shall examine process implementation and actual outputs; product, service, process and personnel evaluations shall additionally apply the relevant object criteria.

22.3(b) Each nonconformity shall identify a requirement, objective evidence and the gap. Classification and decision consequences shall follow Annex AD. Audit-time planning shall follow Annex AC; personnel examinations shall follow Annex AE. A sampled review shall not be claimed to verify every item or person.

Required evidence: Evaluation plan; sample rationale; objective evidence; requirement-linked findings; assessed limitations.

V.1 Assessment planning and evidence sampling

SOURCE p. 87 | Normative when applicable

V.1(a) The assessor shall establish the object, scope, applicable requirements, sites, functions, products, periods and authorized evidence access. Sampling shall consider criticality, changes, poor performance, process diversity and potential systemic failure. Sample limitations shall be recorded and shall constrain the resulting claim.

V.1(b) Assessment shall combine documented arrangements, interviews, observed work and retained results. The reviewer shall test whether records agree across the lifecycle. A completed questionnaire, certificate or policy statement alone shall not demonstrate implementation.

V.1(c) Organizational evaluation time and coverage shall follow Annex AC. The selected object route shall additionally follow Annex AA, and the actual decision shall follow Annex AD. Confidential evidence shall remain accessible to suitably authorized reviewers; unresolved absence of necessary evidence blocks the dependent conclusion.

Required evidence: Scope and route; approved plan; sample rationale; combined evidence; actual limits and access.

V.2 Findings and requirement-level conclusions

SOURCE p. 87 | Normative when applicable

V.2(a) Each finding shall identify the exact requirement, objective evidence, affected scope and gap. Classification shall follow Annex AD. A technical release hold shall be applied where needed irrespective of an administrative grade. Opportunities for improvement shall not conceal nonconformities.

V.2(b) The conclusion shall state conforming, nonconforming, not applicable with approved rationale or not yet demonstrated for each relevant requirement. Aggregate scores shall not offset missing mandatory evidence. The final decision shall identify unresolved issues and the precise scope that the evidence can support.

Required evidence: Requirement-level findings; classification; technical holds; evaluated applicability; clear conclusion. For Annex N, only N.1–N.3 and their required record tables are normative; the numerical worked examples are informative. For Annex AJ, required record fields and controls are normative, while filled sample values are informative.

V.3 Integrated audit trail and sample expansion

SOURCE p. 95 | Normative when applicable

V.3(a) An assessor may select a delivered serial, service event or task authorization and trace it backward through release, requirements, configuration, process, competent performer, measurement and external source. The assessor shall then trace relevant changes, field issues or complaints forward through population identification and corrective action.

V.3(b) When records disagree, the assessor shall expand the trail according to the potential extent and consequence. One successfully traced item does not verify the whole population. An apparent completeness score shall not conceal absent actual measurements, unverified qualifications or unresolved configuration changes.

Required evidence: Complete backward/forward trail; consistency checks; expanded samples; evaluated population limitations.

AA.3 Evaluation sequence and admission controls

SOURCE p. 104 | Normative when applicable

AA.3(a) The operator shall review eligibility, scope, competence resources, impartiality, evidence access and evaluation feasibility before contracting. It shall agree the profile and explain fees independently of outcome. An application shall not be accepted for a scope the operator cannot competently assess.

AA.3(b) The evaluation shall establish readiness, verify implementation or technical performance, record findings, verify correction and submit the complete evidence for independent review. ORG evaluation shall include readiness and implementation stages. Other routes shall use object-appropriate stages without imposing an organizational audit on an individual candidate.

AA.3(c) For an initial ORG assessment, the applicant shall have completed an internal audit covering the applicable scope and a management review, with sufficient implemented records to show operation. A new organization may be assessed when adequate actual evidence exists; artificial backdated records or a fixed unsubstantiated history shall not be requested or accepted.

Required evidence: Admission decision; contract; approved evaluation plan; readiness evidence; evaluation results and independent review.

AC.1 Planning inputs and effective personnel

SOURCE p. 109 | Normative when applicable

AC.1(a) The plan shall identify sites, shifts, functions, product and service families, technical modules, criticality, languages, external work, past performance, changes and access conditions. The provider shall review scope before determining time, rather than deriving scope from a fee quotation.

AC.1(b) Effective personnel N shall include employees and externally provided people whose work falls within the assessed organizational scope, including relevant temporary and seasonal staff. Part-time work may be converted using documented full-time-equivalent hours; each unique critical role shall nevertheless count as at least one person. Peak relevant staffing and actual shift diversity shall be considered. After the FTE calculation, N shall be rounded upward to the next whole person, with a minimum of one, before selecting the Table AC-1 band.

AC.1(c) Personnel shall not be excluded solely because they work remotely, are employed by an agency or support production indirectly. The provider shall document any consolidation of equivalent roles and shall avoid counting the same shared-service staff more than once.

Required evidence: Scope and staffing basis; FTE calculation; sites and shifts; critical-role coverage; planning rationale.

AC.2 Criticality, complexity and site modifiers

SOURCE p. 109 | Normative when applicable

AC.2(a) The multiplier K shall use the highest relevant criticality in the assessed scope: C0 = 1.00; C1 = 1.15; C2 = 1.35; C3 = 1.60. Where genuinely separate technical scopes are evaluated independently, their separate time allocations shall be recorded; a critical function shall not be diluted by averaging personnel across lower- criticality work.

AC.2(b) The additive complexity factor f shall include 0.15 for special-process qualification in scope, 0.15 for assured software/AI or digitally controlled acceptance, and 0.15 for materially novel technology without representative operating history. These are distinct triggers; a trigger shall be counted once. Other complexity requiring more time shall be added through a documented plan adjustment.

AC.2(c) Let S_v be the number of physical sites to be visited, with a minimum value of one for calculation. Let H be the number of additional materially different operating shifts requiring separate observation beyond the primary shift. The site/shift addition is $0.5(S_v - 1) + 0.5H$ auditor-days. This addition does not remove the coverage floor in AC.3.

Required evidence: Criticality selection; triggered complexity factors; site and shift additions; additional-resource decisions.

Source calculation note: (AC-1) $T_{calc} = \text{ceil}(2 \times [B(N) \times K \times (1 + f) + 0.5(S_v - 1) + 0.5H]) / 2$ ceil means rounding upward to the next integer. T_{calc} is rounded upward to a half auditor-day. One auditor-day is eight hours of actual evaluation; time is additive across competent evaluators, not merely elapsed calendar days.

AC.3 Total time, stages and exclusions

SOURCE p. 109 | Normative when applicable

AC.3(a) Initial evaluation time T shall be at least T_{calc} and at least one auditor-day per visited physical site, with additional time for the central function and remote activities where needed. For a wholly digital single-location organization, the physical-site floor shall be treated as one evaluation location, not an obligation to invent a physical visit.

AC.3(b) Readiness-stage time T1 shall be at least 0.5 auditor-day and the upward half-day rounding of 25% of T. Implementation-stage time T2 shall be the remainder and at least 1.5 auditor-days. If these minima cannot both be met, total time shall be increased. Readiness shall verify scope, documents, internal evaluation, implemented evidence and readiness for technical examination.

AC.3(c) Travel, meal breaks, commercial administration, final report production, interpretation delays, independent review and decision time shall not count as evaluation time. Trainees and observers shall not be counted as fully productive auditors. Separate technical expert time shall be counted only for the actual evaluation task and not double-counted against simultaneous auditor activity on the same task.

Required evidence: Time calculation; stage allocation; site/shift schedule; productive-time records; separate review and decision resources.

Source calculation note: (AC-2) $T1 = \max[0.5, \text{ceil}(2 \times 0.25T)/2]$; $T2 = T - T1 \geq 1.5$ The equation gives the minimum readiness allocation. Increase total time where the readiness or implementation evidence requires more time.

AC.4 Surveillance and renewal time

SOURCE p. 110 | Normative when applicable

AC.4(a) For the current scope, the operator shall recalculate the initial time T when material scope or risk changes. Each surveillance evaluation shall use at least half of T, rounded upward to a half-day, and at least one auditor-day. Renewal shall use at least three quarters of T, rounded upward to a half-day, and at least two auditor-days.

AC.4(b) The site coverage and critical-control requirements remain additional floors. The provider shall increase time where these percentages cannot cover required sites, shifts, technical processes or unresolved concerns. No reduction shall be granted merely for AF membership, another certificate, a low fee or long customer history.

AC.4(c) Frequency is governed by Annex AG. Time allocated to one surveillance visit shall not be borrowed from a future visit to cover a missed required activity. Extra follow-up to verify nonconformity closure shall be planned according to the nature of the issue.

Required evidence: Current T calculation; surveillance and renewal schedules; required-site coverage; added follow-up time.

AC.5 Multisite coverage and controlled sampling

SOURCE p. 110 | Normative when applicable

AC.5(a) Every physical site included in an initial or renewal ORG scope shall be evaluated. The central management function, shared critical activities and remote functions shall also be covered. Site selection shall consider actual processes rather than addresses alone; a legal address with no operational activity shall not be represented as a production site.

AC.5(b) For surveillance only, homogeneous C0/C1 sites under one centrally controlled system may be sampled when equivalent activities, methods and controls are demonstrated. From S eligible sites, at least $m = \max(\text{ceil}(\sqrt{S}), \text{ceil}(S/2))$ shall be evaluated at each annual surveillance. Selection shall rotate to cover all eligible sites within 24 months. At least one quarter of selected sites, rounded upward, shall be chosen randomly; the remainder shall be risk-selected.

AC.5(c) C2/C3 sites, unique activities, materially different processes, sites with significant unresolved issues and newly added sites shall not enter that reduced homogeneous pool. Relevant C2/C3 critical-control sites shall be evaluated at each required surveillance interval. The central function shall be evaluated at every surveillance. These selections are coverage rules, not statistical confidence claims.

AC.5(d) A systemic finding at one site shall trigger review of all potentially affected sites and expansion of the sample. Removing the failing site from the certificate shall not be accepted as correction where the central system or remaining sites share the deficiency.

Required evidence: Eligibility analysis; site pool; random and risk selection; rotation history; expanded sampling and systemic review.

Source calculation note: (AC-3) $m = \max[\text{ceil}(\sqrt{S}), \text{ceil}(S/2)]$ Applies only to the eligible homogeneous C0/C1 surveillance pool. Mandatory central, critical and otherwise ineligible sites are added separately.

AC.6 Remote evaluation and access limitations

SOURCE p. 110 | Normative when applicable

AC.6(a) Remote methods may be used when identity, confidentiality, live observation, configuration, provenance and access provide evidence equivalent for the stated purpose. The provider shall document the suitability decision and limitations. Remote record review alone shall not replace necessary observation of a physical special process or safety-critical activity.

AC.6(b) Where reliable physical evidence cannot be obtained remotely, on-site evaluation or an appropriately controlled witnessed method shall be used. Restricted access shall be resolved through authorized arrangements. If necessary evidence remains unavailable, the corresponding conformity conclusion shall not be granted.

AC.6(c) Recording, screen capture and transfer of sensitive data shall be authorized. Live feeds shall be protected against selective or prerecorded presentation. Network failure or incomplete observation shall be recorded and the affected activity repeated or supplemented rather than marked complete.

Required evidence: Remote-method suitability review; authorized access; witnessed records; limitations and completed supplementary work.

AC.7 Audit execution, sample expansion and reporting

SOURCE p. 110 | Normative when applicable

AC.7(a) The audit shall include an opening review of scope and access, examination of actual process interactions, vertical traceability through selected outputs, observation of critical controls and a closing review of evidence-based findings. The sample shall include unfavorable results, changes, rework, complaints and unsuccessful tests where relevant.

AC.7(b) Samples shall identify populations, selections and limitations. Judgmental sampling shall not be described as a statistical assurance level. An inconsistency or suspected systemic issue shall trigger an expanded trail proportionate to consequence. The final report shall be issued within 14 calendar days after the evaluation closes, unless a documented exceptional delay is communicated without postponing protective action.

AC.7(c) The report shall identify actual evaluation time, participants, scope, criteria, methods, locations, sample, findings, unresolved limitations and the evaluator's recommendation. The independent decision shall remain distinct from that recommendation.

Required evidence: Audit plan; time log; evidence and sample trails; expanded checks; final report and separate decision.

AC.8 Worked time and sampling examples — illustrative

SOURCE p. 111 | Definition, explanation or informative example; no new universal limit

AC.8(a) For $N = 80$, one physical site, one observed shift, C2 criticality and two complexity triggers, $B = 5$, $K = 1.35$ and $f = 0.30$. The calculation gives $5 \times 1.35 \times 1.30 = 8.775$ auditor-days, rounded upward to $T = 9.0$. The minimum readiness stage is 2.5 days and implementation is 6.5 days. Surveillance is at least 4.5 days; renewal is at least 7.0 days. Independent review and decision require additional time.

AC.8(b) For nine eligible homogeneous C0/C1 sites, $m = \max(3, 5) = 5$ sites at annual surveillance, plus the central function and any separately mandatory locations. The selection rotates to cover every eligible site within 24 months. At least two of the five selected sites are random. This does not mean the unvisited sites are known to conform.

AC.8(c) For an optional statistical detection study, independent random observations with a true issue rate $p = 0.10$ need $n = \text{ceil}(\ln(0.05)/\ln(0.90)) = 29$ to have at least 95% probability of observing one or more issues. This model does not validate judgmental audit sampling, dependent records or a claim that the whole system is 95% conforming.

Source calculation note: $(AC-4) n_{\text{detect}} = \text{ceil}[\ln(1 - C)/\ln(1 - p)]$ C is the desired probability of detecting at least one issue when independent observations each have issue probability p . This is a detection-planning model, not a universal audit sample requirement.

Source tables — complete field and decision payloads

Table V-1 — Audit and assessment record fields

Source p. 87 | Required structure when applicable

Field	Minimum required content
Identity and scope	Evaluation ID, date, assessor, object route, entity/person, site, configuration, profile and period.
Requirement	Exact clause and lettered paragraph, normative table condition or profile criterion.
Sample	Records, items, people, sites and periods observed; selection method and limitations.
Evidence	Objective observations, actual results, traceable records and confidentiality controls.
Conclusion	Conforming, nonconforming, approved non-applicability or not yet demonstrated.
Finding and action	Requirement–evidence–gap, grade, extent, protection, cause, actions, owner and original deadline.
Closure and decision	Verified implementation and effectiveness; independent reviewer and decision; actual status and date.

Table AC-1 — Base initial organizational evaluation time

Source p. 109 | Required structure when applicable

Effective personnel N	Base B(N), auditor-days	Application
1-10	2.0	Readiness and implementation evaluation combined, before modifiers.
11-25	3.0	Same scope and time definition.
26-75	4.0	Same scope and time definition.
76-150	5.0	Same scope and time definition.
151-300	7.0	Same scope and time definition.
301-600	9.0	Same scope and time definition.
Above 600	$9 + \text{ceil}((N - 600)/300)$	Add one base auditor-day for each additional block of up to 300 effective personnel.

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.