



AF 9100:2026

Aerospace Quality Management System

FORM

Contamination, Preservation and External Property

AF-FR-9100-024

FIRST EDITION

30 September 2026 | English master text

Publication identity and application

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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.

Interactive fields are blank by default. Save a working copy, use continuation records where necessary and preserve raw supporting evidence outside the PDF through controlled references. Separate issued PDFs are the authoritative interactive copies; the combined reading edition is flattened.

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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 Purpose, source identity and completion rules

This additional implementation form organizes the detailed record needs of the identified AF 9100 provisions. It supplements the twelve source form modules without renumbering them or creating a new assessment route.

Complete the applicable fields with authentic information. Record unknown, unavailable and not-yet-demonstrated conditions explicitly. An exclusion needs an approved applicability rationale. Use linked continuation records for multiple items, sources, tests, people or decisions. Keep source attachments under controlled custody; do not rely on this PDF alone where raw evidence is required.

2 Common identity and record control

Record ID and continuation link

Template/code and controlled version

Case/applicant/asset identity

Route, scope and application profile

Object configuration and relevant period

Actual creation/event time and time zone

Author and role

Reviewer and approval responsibility

Current state and original history

Original evidence and source location

Access classification and permitted recipients

Retention basis, duration and preservation hold**Correction: original value, reason, author and approval****Authenticated approval/workflow reference (typed name is not a signature)**

3 Form-specific evidence and decisions

Item/property identity and owner

Permitted use and custody

Sensitive characteristics

Required condition and approved basis

Access/clean-zone controls

Cleaning and verification method

Packaging qualification

Shelf/out-time and storage

Transport route and handovers

Actual monitoring and excursions

Affected population and technical disposition

Damage/loss/unauthorized use notices

Receiving condition

Final return/disposal and evidence

4 Detailed continuation record

Use this section for each additional independently testable condition or actual event. A form-level summary cannot remove a required field, earlier failed result or unresolved item.

Parent form and continuation/item ID

Exact object / configuration / performer / event time

Source requirement / approved profile / condition

Numeric criterion with units or observable attribute

Method / validity / uncertainty / essential step

Original evidence and actual result

Conclusion and limitations / rejected or contrary evidence

Required protection / action / responsible owner / actual due event

Reviewer / approval reference / receiving acknowledgement

5 Completeness and receiving review

Check	Required review
Identity and scope	Every record belongs to the actual object, evaluated configuration and relevant period.
Evidence and validity	Required original data, method, actual results and limitations are traceable.
Decision separation	Technical disposition, independent attestation, employer task authority and public permission are not merged.
History and time	Earlier failed states and original notification clocks are preserved; no manufactured observations.
Approval and custody	Actual competent authority and receiving responsibility are established; typed names are not authenticated signatures.

Actual reviewer / conclusion / unresolved items

Authenticated approval instrument or workflow reference

Receiving custodian / access / retention / accepted residual duties

Appendix A — Source requirements and complete field payload

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.

7.5 Work environment, cleanliness and contamination

SOURCE p. 18 | Normative when applicable

7.5(a) The organization shall define necessary environmental conditions for work, storage, inspection and testing. Controls shall address relevant temperature, humidity, vibration, lighting, electromagnetic disturbance, cleanliness, electrostatic discharge, contamination and biological or chemical exposure.

7.5(b) Clean zones, sensitive assemblies and contamination-critical processes shall have controlled entry, materials, cleaning methods and verification. Excursions shall trigger an assessment of exposed products and evidence, including material already transferred downstream. Restoration of room conditions alone shall not close the product-impact assessment.

Required evidence: Environmental specifications; monitoring logs; excursion investigations; cleanliness verification.

8.5.3 Customer and external-provider property

SOURCE p. 25 | Normative when applicable

8.5.3(a) Property under the organization's control shall be identified, protected and used only as authorized. This includes physical items, tooling, intellectual property, technical data, software, personal information and access credentials.

8.5.3(b) Loss, damage, unsuitable condition or unauthorized use shall be reported to the owner through the agreed channel and recorded. The organization shall preserve evidence and assess product or service impact rather than treating the issue solely as an administrative property loss.

Required evidence: Property register; receipt checks; access controls; condition and incident records.

8.5.4 Preservation, packaging and transport

SOURCE p. 25 | Normative when applicable

8.5.4(a) The organization shall preserve conformity during handling, storage, packaging and transport. Controls shall address cleanliness, FOD, humidity, temperature, corrosion, ESD, shock, shelf life, material compatibility, hazardous conditions and stock rotation as applicable.

8.5.4(b) Packaging methods shall be qualified for the actual route and exposure where risk warrants. Excursions or damaged packaging shall trigger a product assessment. Expired, life-limited or environmentally exposed material shall not be returned to normal stock without an authorized disposition based on technical evidence.

Required evidence: Preservation specifications; packaging qualification; environmental history; shelf-life controls; excursion dispositions.

18.7 Surface engineering, cleanliness and contamination-sensitive products

SOURCE p. 37 | Normative when applicable

18.7(a) Coatings, plating, surface treatments, lubrication and cleaning shall be controlled for material compatibility, essential variables, residue, thickness or other relevant characteristics. The organization shall assess effects on fatigue, corrosion, bonding, electrical contact and contamination.

18.7(b) Changes in chemicals, suppliers, bath condition, preparation or cure shall be reviewed. Cleanliness acceptance shall use a defined method and sampling location. A generic statement that an item is "clean" shall not establish conformity to a contamination-sensitive requirement.

Required evidence: Surface-process qualification; bath or chemical controls; test results; cleanliness criteria and records.

T.1 Service capability record

SOURCE p. 83 | Normative when applicable

T.1(a) The service organization shall define its scope, authorized tasks, facilities, people, tools, current data, required parts and release authority. New capability shall be approved only after the actual resources and methods are demonstrated.

T.1(b) The record shall identify legal or customer authorizations separately from AF conformity. A broad corporate scope shall not imply authorization of every mechanic, location or repair method.

T.2 Unknown history and unauthorized parts

SOURCE p. 83 | Normative when applicable

T.2(a) Unknown service history, missing life data or unclear source shall be recorded and assessed. The organization shall not reset life or infer eligibility solely from appearance, a successful bench test or an unverifiable certificate.

T.2(b) Suspected unapproved or counterfeit parts shall be isolated, investigated and dispositioned under controlled procedures. Removed parts shall retain identity and status so that scrap or restricted items cannot be mistaken for serviceable stock.

T.3 Filled illustrative split-lot trace

SOURCE p. 83 | Definition, explanation or informative example; no new universal limit

T.3(a) Example: incoming lot L-500 contains 500 fasteners under original certificate C-500. It is split into packages L-500-A (200), L-500-B (200) and L-500-C (100). The record preserves the original manufacturer, lot, specification, certificate and storage history for all three child packages.

T.3(b) If an authenticity concern later affects L-500, the trace identifies every shipped customer and remaining package. A copied certificate is linked to the child quantity but is not edited to imply that the distributor performed the original manufacturer's tests.

T.4 Release and continuing support

SOURCE p. 84 | Normative when applicable

T.4(a) Service release shall identify the exact work performed, evidence, limitations, life status and authorized person. A maintenance release shall not imply approval of unrelated systems or a complete vehicle unless that scope was actually assessed and authorized.

T.4(b) After release, newly discovered issues affecting the service action shall be investigated and communicated to affected recipients. Records shall support population identification even when work occurred at temporary or customer locations.

Source tables — complete field and decision payloads

Table T-1 — Maintenance and repair evidence

Source p. 83 | Required structure when applicable

Record	Minimum fields
Receipt and condition	Customer; item identity; configuration; reported defect; physical condition; accompanying history; missing information.
Work scope	Requested tasks; approved technical data; revision; limitations; required approvals; estimate and authorization.
Life status	Time/cycles/exposure; life limits; previous repairs; applicability of service information; uncertainty.
Execution	Task sequence; performer; tools; parts removed/installed; process records; inspections; interruptions and handovers.
Independent checks	Required task; independent competent person; method; actual result; discrepancy resolution.
Nonconformity and repair	Finding; technical basis; approval; affected scope; rework/repair; verification.
Final configuration	As-maintained baseline; installed versions; restored protections; removed temporary devices.
Release	Completed requirements; authorized identity; required release document; limitations; next maintenance/life information.
Customer handover	Returned property; records; operating restrictions; acknowledgement where required.
Retention	Data location; period and basis; access; transfer on closure; secure disposal.

Table T-2 — Distribution and split-lot evidence

Source p. 83 | Required structure when applicable

Stage	Required information and control
Source approval	Actual source, authorized-channel or alternative-source evidence, scope and authenticity risk.
Receipt	Manufacturer/part/lot identity, quantity, condition, certificates, life status and required verification.
Storage	Location, environment, preservation, shelf life, access and segregation of restricted stock.
Split or repack	Original lot, child lot/package identity, quantities, date, performer, certificate linkage and label accuracy.
Order fulfillment	Customer requirements, correct revision/condition, required documents and preservation.
Dispatch	Quantity reconciliation, custody, carrier conditions, package identity and delivery evidence.
Recall or suspect stock	Affected original and split lots, shipped customers, remaining stock, notifications and disposition.