



ASTRA

AEROSPACE STANDARD

REGISTER AND DATA DICTIONARY

Outcome Status, Claims and Registry Change Register

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Purpose and application

PDF record architecture, field dictionary, manual review rules and blank capture sheets for Outcome Status, Claims and Registry Change Register. This replaces only the planned delivery format for this issue: it is not an executable spreadsheet, access-control system, database or automatic decision engine.

Source requirements and added implementation detail

The controlling ASTRA source is identified above by content fingerprint. Numbered source clauses and annexes retain their own authority. The retained operating material is restructured and expanded with implementation methods, additional profile controls, worked synthetic examples, decision diagrams and record contracts. Added implementation detail is not presented as an earlier institutional approval or as a change to the supplied core standard. Any additional binding criterion requires the applicable technical adoption process.

The displayed publication date identifies the edition; it is not a fabricated authoring, test, approval or operational date. Actual records retain genuine event times and controlled versions. No named outside organisation or standard is incorporated as a normative reference. AF internal instruments and separate legal or contractual duties remain applicable within their actual scope.

Acceptance boundary

A positive grant requires every applicable mandatory condition to PASS, every N/A to have independent justification, every in-scope nonconformity to be verified closed, and competent independent authority. HOLD, unknown state, missing evidence, a favourable average, a signature image or a completed form cannot substitute for those conditions.

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1 Purpose, ownership and state separation

Append status events rather than overwriting history. Reissue, payment, appeal and import cannot revive suspended or expired authority. The public projection must match the actual independent decision within the two-day update requirement.

Active; restricted; suspended; expired; withdrawn; historical instance. Restoration is an authorised event into a current supported state and normally preserves original expiry.

The named custodian allocates persistent IDs and administers records under actual permission. Technical acceptance, independent decisions and public publication have separate authorities. All tables inherit the common record payload from Annex M. A printed row, a formula specification or a linked identifier alone does not demonstrate an underlying event.

2 Relational field dictionary

Decisions

Field	Meaning and control
decision_id	Persistent unique identifier for this entity or record. Resolve every parent link to the correct actual object; do not reuse or infer a missing identity.
case_scope	Precisely bounded activity, location, method, object or subject. Include relevant conditions and exclusions and retain separate responsibility for every claimed outcome.
dossier_version	Exact controlled version or technical state supporting this record. Retain before/after history and verify match to the actual evaluated configuration.
gate_result	Record the actual gate result for this dataset, with scope, source and limitations. Use the controlling procedure and field relationships; retain corrections and reviewer accountability.
independent_authority	Attributable action of a competent authorised function, including independence and conflicts where required. Link the authentic instrument; no prefilled approval is implied.
panel_record	Usable original source reference and version, responsible origin, permitted access and relevance to the named purpose. A reference existing in the register is not proof of validity.
actual_decision_time	Actual event or controlled period with a declared time basis. Keep creation, occurrence, review, decision and expiry distinct; preserve original deadlines and historical gaps.
reason	Record the actual reason for this dataset, with scope, source and limitations. Use the controlling procedure and field relationships; retain corrections and reviewer accountability.

Credentials

Field	Meaning and control
credential_id	Persistent unique identifier for this entity or record. Resolve every parent link to the correct actual object; do not reuse or infer a missing identity.
decision_id	Persistent unique identifier for this entity or record. Resolve every parent link to the correct actual object; do not reuse or infer a missing identity.
issuer_holder	Actual responsible legal entity or person and their role/scope. Distinguish the performer, custodian, evaluator, independent decision maker and issuer.
outcome_class	Record the actual outcome class for this dataset, with scope, source and limitations. Use the controlling procedure and field relationships; retain corrections and reviewer accountability.
exact_scope	Precisely bounded activity, location, method, object or subject. Include relevant conditions and exclusions and retain separate responsibility for every claimed outcome.
issue_time	Actual event or controlled period with a declared time basis. Keep creation, occurrence, review, decision and expiry distinct; preserve original deadlines and historical gaps.
expiry_or_instance	Record the actual expiry or instance for this dataset, with scope, source and limitations. Use the controlling procedure and field relationships; retain corrections and reviewer accountability.
status	Dataset-specific permitted state with the actual transition reason, authority and date. Do not conflate evidence receipt, case progress, conformity or current holder authority.

Claims and permissions

Field	Meaning and control
claim_id	Persistent unique identifier for this entity or record. Resolve every parent link to the correct actual object; do not reuse or infer a missing identity.
credential_id	Persistent unique identifier for this entity or record. Resolve every parent link to the correct actual object; do not reuse or infer a missing identity.
approved_wording	Record the actual approved wording for this dataset, with scope, source and limitations. Use the controlling procedure and field relationships; retain corrections and reviewer accountability.
media	Record the actual media for this dataset, with scope, source and limitations. Use the controlling procedure and field relationships; retain corrections and reviewer accountability.
mark_artwork	Record the actual mark artwork for this dataset, with scope, source and limitations. Use the controlling procedure and field relationships; retain corrections and reviewer accountability.
permission_record	Usable original source reference and version, responsible origin, permitted access and relevance to the named purpose. A reference existing in the register is not proof of validity.
permitted_period	Actual event or controlled period with a declared time basis. Keep creation, occurrence, review, decision and expiry distinct; preserve original deadlines and historical gaps.
restrictions	Record the actual restrictions for this dataset, with scope, source and limitations. Use the controlling procedure and field relationships; retain corrections and reviewer accountability.

Status events

Field	Meaning and control
event_id	Persistent unique identifier for this entity or record. Resolve every parent link to the correct actual object; do not reuse or infer a missing identity.
credential_id	Persistent unique identifier for this entity or record. Resolve every parent link to the correct actual object; do not reuse or infer a missing identity.
prior_state	Dataset-specific permitted state with the actual transition reason, authority and date. Do not conflate evidence receipt, case progress, conformity or current holder authority.
new_state	Dataset-specific permitted state with the actual transition reason, authority and date. Do not conflate evidence receipt, case progress, conformity or current holder authority.
scope_affected	Precisely bounded activity, location, method, object or subject. Include relevant conditions and exclusions and retain separate responsibility for every claimed outcome.
decision_id	Persistent unique identifier for this entity or record. Resolve every parent link to the correct actual object; do not reuse or infer a missing identity.
actual_time	Actual event or controlled period with a declared time basis. Keep creation, occurrence, review, decision and expiry distinct; preserve original deadlines and historical gaps.
notice	Record the actual notice for this dataset, with scope, source and limitations. Use the controlling procedure and field relationships; retain corrections and reviewer accountability.
public_update_time	Actual event or controlled period with a declared time basis. Keep creation, occurrence, review, decision and expiry distinct; preserve original deadlines and historical gaps.

3 Common fields and integrity checks

Required identity or field	Content and interpretation
Record ID	Unique persistent identifier; do not reuse a withdrawn or superseded identifier for a different record.
Template / schema version	Identify this form version and any controlled continuation or equivalent record mapping.
Case and evaluated object ID	Connect to the actual application, asset, person, programme, method or statement.
Legal entity and actual performer	Distinguish accountable organisation, issuer, applicant and subcontracted performer.
Family / module and outcome class	Use the retained family/module and correct accreditation, recognition, qualification, certification, verification or validation class.
Scope / technical profile ID and version	Identify the exact version; a title alone is insufficient.
Site / station / delivery mode	Record physical, remote, mobile and partner-delivery boundaries that affect this record.
Configuration / method / statement version	Identify the actual technical baseline and conditions evaluated.
Creation date and time basis	Use the actual creation date; state time zone when a clock or sequence depends on time.
Relevant event / awareness / decision dates	Keep distinct dates separate. Use a linked chronology where more than one event exists.
Accountable author and role	Identify who recorded the information and within which task authority.
Reviewer / approver and authority	Identify the responsible review or approval function; blank does not mean approved.
Evidence references and versions	Link accessible original evidence, including adverse, missing or superseded items.
Record status and purpose	Use the relevant allowed states; evidence status and conformity status are separate.
Access / confidentiality class	Record authorised access; do not put protected operational detail in a public field.
Retention basis / custody / hold	Name the controlling retention rule, custodian and any preservation hold.
Correction / supersession history	Link the original, reason, person, actual date and affected downstream records.

Before accepting a record, verify unique identity, valid parent relationships, exact profile and configuration, actual time sequence and authorised origin. Check for duplicate keys, missing essential values, rejected evidence, unresolved findings, expired roles and unsupported public status. A successful key lookup is not proof that the linked source is true or relevant.

4 Manual operation, calculations and test cases

Create

Establish the actual triggering event and correct dataset. Allocate a unique ID, complete common and specific payload, retain the source and record unfilled essential fields as gaps rather than favourable defaults.

Review

A competent reviewer examines meaning, scope, evidence and event chronology. Where an independent decision is needed, route the versioned dossier to the separately authorised function instead of letting the custodian decide.

Update

Append changes with previous value, new value, reason, actual actor/date and decision reference. Retain superseded sources and historical state. Never reset a clock by copying the row into a new sheet.

Reconcile

Compare the expected population to actual records by identity, relationships, field semantics and permissible state. Confirm all exceptions, omissions and duplicates are accounted for before export or cutover.

Retain and recover

Use controlled access, retention, backups and actual recovery tests in the operational repository. This PDF provides the recording design only; test the deployed system and receiving custody independently.

Safe test	Expected result
Duplicate record ID	Detect collision and retain the original; do not silently overwrite or merge unrelated records.
Missing source / wrong configuration	Mark the dependency unavailable or mismatched and hold any affected positive conclusion.
Open finding / expired role	No unsupported grant, renewal, extension or unauthorised action. Preserve event-time assessment.
Old backup / missing later events	Reconcile post-backup history and current status before return to assured use.
Equal counts but substituted records	Fail semantic reconciliation; identify the actual missing and substituted identities.
Synthetic data in a public export	Exclude test records from live recipients and claims.

Manual calculations: count distinct record IDs, not duplicate appearances. Outstanding count = required population minus independently verified completed population only when both sets use the same definition and membership. A percentage is undefined if the denominator is absent or zero; do not display a favourable default. Calendar/month calculations follow Annex H. Any implemented formula requires separate known-answer, boundary and invalid-input tests.

1 Completion workflow and validation contract

PDF record architecture, field dictionary, manual review rules and blank capture sheets for Outcome Status, Claims and Registry Change Register. This replaces only the planned delivery format for this issue: it is not an executable spreadsheet, access-control system, database or automatic decision engine.

Open a working copy, retain its code and existing field names, and enter record identity before technical details. Complete common identity, the original module fields, all triggered assurance extensions, independent review and receiving handover. An expression of interest, prepared application, test design or unsigned record is not a live positive outcome. Record blank, missing, invalid and disputed information explicitly rather than replacing it with favourable text.

Input group	Validation before reliance	Invalid / incomplete response
Identity and configuration	Stable IDs; actual object and performer; correct profile, method and loaded configuration.	HOLD dependent use; resolve wrong-object or wrong-version evidence.
Numbers and units	Finite real values; compatible units; ordered limits; non-negative uncertainty; unrounded source retained.	Reject malformed inputs. Blank, NaN or infinity is not zero.
States and evidence	Received/reviewed/accepted evidence states separate from PASS/FAIL/HOLD/N/A.	UNSET is not a fifth favourable state; preserve the gap.
People and time	Current competence, conflict clearance and authority at actual event time; declared time convention.	Later renewal cannot validate an earlier unauthorised action.

Input group	Validation before reliance	Invalid / incomplete response
Approval and custody	Authentic approval instrument, exact permitted action and actual receiving acceptance.	No approval inferred from a typed name, file presence or sending a message.

The PDF stores entered text but does not enforce access rights, numerical logic, identity verification, automatic deadlines or live registry states. A competent authorised person applies the checks. Local digital systems require their own validation. Printing may omit text that exceeds a visible field: complete the continuation record and reference it from the parent field.

2 Acceptance and original record preservation

Apply the following logic to the exact evaluated object and responsible function. A procedural checkpoint, product characteristic, competence decision and public credential are different objects. Their states shall not be collapsed into one score. Source: ASTRA 62.1–62.7 and Annex AL.

State	Sufficient basis	Required next action
PASS	Applicable; current approved predicate met by valid, purpose-specific evidence.	Retain the original evidence and bounded inference. Other mandatory gates still apply.
FAIL	Applicable; valid evidence demonstrates that the approved predicate is not met.	Contain affected use; retain the failure; assess cause, extent and required corrective verification.
HOLD	Applicability, criterion, method, evidence, uncertainty or authority is unresolved.	Resolve the missing basis. Do not manufacture a value, favourable default or product-defect conclusion.
N/A	Activity trigger and retained responsibility are absent; independent exclusion approval exists.	Retain the scope-specific reason and reassess when activity or responsibility changes.
UNSET	Only an uncompleted field in this PDF; not a conformity state.	No conclusion is recorded. Complete review before the field can support a decision.

For a compound source clause, create a child-condition ledger containing every separately testable condition, location, phase and operating mode. A sentence-level checkpoint is a navigation aid, not permission to merge unrelated predicates. Each child receives an ID, responsible owner, criterion, method, source evidence, uncertainty where relevant, current state and independent review. The parent cannot PASS while any mandatory child is FAIL, HOLD or UNSET.

An acceptable measurement interval and an acceptable authority chain are independent prerequisites. Use finite, unit-consistent, unrounded values; negative uncertainty, reversed limits, unknown version or wrong-object evidence produce HOLD. For inclusive [L,H] and accepted interval [a,b], PASS requires $a \geq L$ and $b \leq H$; FAIL requires $b < L$ or $a > H$; otherwise HOLD. Approved one-sided or exclusive boundaries retain their own declared predicate.

Positive-decision conjunction

Every applicable mandatory child is PASS AND each N/A is independently justified AND every in-scope nonconformity is verified closed AND scope, competence, independence and actual authority are valid AND required panel participation and voting rules are satisfied. No average, majority preference or payment supplies missing evidence.

3 Source and record relationship crosswalk

The references below use the supplied 248-page FIRST EDITION. Each row retains the original clause identifier and source page. The operating instructions in this document elaborate implementation; they do not replace the full source condition or its applicable annexes. A reference to a whole chapter requires selection of every triggered subclause, not only the examples printed here.

ASTRA ID / page	Source subject	Implementation use
3.4 / 13	Case separation and decision panels	Requirement, objective evidence and local child predicates
14.2 / 25	Immediate protection and notifications	Requirement, objective evidence and local child predicates
15.1 / 26	Review dossier	Requirement, objective evidence and local child predicates
15.2 / 27	Positive-decision gate	Requirement, objective evidence and local child predicates
15.3 / 27	Panel and dissent	Requirement, objective evidence and local child predicates
15.5 / 27	Decision date and communication	Requirement, objective evidence and local child predicates
16.1 / 27	Duration and basis	Requirement, objective evidence and local child predicates
16.2 / 28	Surveillance frequency and coverage	Requirement, objective evidence and local child predicates
16.3 / 28	Material change and notification	Requirement, objective evidence and local child predicates
16.4 / 28	Renewal and interruption	Requirement, objective evidence and local child predicates
16.5 / 28	Suspension, restoration and withdrawal	Requirement, objective evidence and local child predicates
28.1 / 45	Mandatory scope content	Requirement, objective evidence and local child predicates
28.2 / 46	Truthful public wording	Requirement, objective evidence and local child predicates
28.3 / 46	AF marks and authorised use	Requirement, objective evidence and local child predicates
28.4 / 46	Registry states and authenticity	Requirement, objective evidence and local child predicates
28.5 / 46	Registry security, correction and availability	Requirement, objective evidence and local child predicates
56.3 / 81	Decision and publication safeguards	Requirement, objective evidence and local child predicates
58.5 / 83	Continuing status and real chronology	Requirement, objective evidence and local child predicates
62.4 / 88	Four requirement states	Explicit verification and acceptance predicate
62.5 / 89	No compensation or favourable default	Explicit verification and acceptance predicate
62.7 / 89	Decision replay and consistency	Explicit verification and acceptance predicate

ASTRA ID / page	Source subject	Implementation use
63.2 / 90	Object and activity rather than a universal label	Explicit verification and acceptance predicate
64.6 / 93	Baseline maintenance and irreversible decisions	Explicit verification and acceptance predicate
68.6 / 101	Mission extension and terminal resources	Explicit verification and acceptance predicate
68.7 / 101	Status and long-term custody	Explicit verification and acceptance predicate
77.8 / 119	Independent campaign closure	Explicit verification and acceptance predicate
78.6 / 121	Monitoring, drift and adaptation	Explicit verification and acceptance predicate
79.3 / 122	Loss of contact and uncertain physical state	Explicit verification and acceptance predicate
79.4 / 122	Affected populations and historical decisions	Explicit verification and acceptance predicate
80.1 / 124	One complete application schedule	Explicit verification and acceptance predicate
80.2 / 124	Domain and verification completeness	Explicit verification and acceptance predicate
80.3 / 124	Competent independent closure	Explicit verification and acceptance predicate
80.4 / 124	Bounded claim and publication	Explicit verification and acceptance predicate
80.5 / 124	Continuing conformity and change	Explicit verification and acceptance predicate

4 Detailed module implementation

AF-AST-PR-014 – Independent Review and Outcome Decisions

Implementation basis: 3.4 (p. 13); 15.1 (p. 26); 15.2 (p. 27); 15.3 (p. 27); 62.4 (p. 88); 62.5 (p. 89); 62.7 (p. 89); 77.8 (p. 119); 80.1 (p. 124); 80.2 (p. 124); 80.3 (p. 124); 80.4 (p. 124)

X14.1 Freeze the independent decision dossier

Reconcile exact scope, requirement population, all triggered parameters, evidence versions, configuration, observations, open issues and accountable roles.

Completion / hold: A missing essential source, unresolved configuration or unsupported exclusion keeps the dependent decision on HOLD.

X14.2 Apply the conjunction before the vote

Require all applicable mandatory rows PASS, approved N/A reasons, verified closure, competent independent authority and required panel participation.

Completion / hold: A numerical majority or high score cannot supply absent evidence or waive a mandatory condition.

X14.3 Replay a difficult or disputed conclusion

Use the same inputs, rule, uncertainty and current role authority to reconstruct the state. Identify the exact differing assumption before accepting agreement.

Completion / hold: Unresolved essential dissent results in more work, a real bounded scope or HOLD, never coerced consensus.

X14.4 Publish only the supported outcome

Record genuine decision, issue and expiry/instance, exact class and limitations. Send authenticated instructions to the registry and relevant recipients.

Completion / hold: Public wording and digital status cannot extend the decision or imply operational permission.

Record contract: the actor records the input baseline, actual work, deviations, result and evidence link; the named receiving function acknowledges access and the permitted next action. A returned or incomplete handover retains the original event history. Use the associated

FR modules and RG record links; no document or database field confers actual authority.

AF-AST-PR-015 – Surveillance, Renewal and Scope Extension

Implementation basis: 16.1 (p. 27); 16.2 (p. 28); 16.3 (p. 28); 16.4 (p. 28); 58.5 (p. 83); 62.5 (p. 89); 64.6 (p. 93); 68.6 (p. 101); 78.6 (p. 121); 80.5 (p. 124)

X15.1 Freeze the actual cycle baseline

Record original decision, maximum duration, selected shorter intervals, criticality and last completed surveillance by independent outcome.

Completion / hold: Bookings and payment do not fulfil surveillance or extend validity.

X15.2 Re-evaluate mission and technical change

Compare environment, duration, fleet, suppliers, task/site, model and monitoring changes. Preserve evidence retained, invalidated and newly required.

Completion / hold: New domain or materially changed duty remains outside the claim until evaluated and independently accepted.

X15.3 Plan and complete meaningful surveillance

Sample actual routine/adverse work, current people, qualified methods, hidden dependencies and necessary local delivery rather than unchanged manuals only.

Completion / hold: All required scope coverage and clocks must be satisfied; missing completion triggers the controlling status action.

X15.4 Renew without manufactured continuity

Complete findings closure, independent review and genuine decision. A late renewal preserves the expired interval and original historical basis.

Completion / hold: Restoration or reprinting is not renewal; operational life and specialist permissions remain separate.

Record contract: the actor records the input baseline, actual work, deviations, result and evidence link; the named receiving function acknowledges access and the permitted next action. A returned or incomplete handover retains the original event history. Use the associated FR modules and RG record links; no document or database field confers actual authority.

AF-AST-PR-016 – Restriction, Suspension, Restoration and Withdrawal

Implementation basis: 14.2 (p. 25); 16.5 (p. 28); 28.4 (p. 46); 62.4 (p. 88); 62.5 (p. 89); 68.7 (p. 101); 79.3 (p. 122); 79.4 (p. 122); 80.5 (p. 124)

X16.1 Define the affected boundary

Link the triggering concern to objects, sites, methods, states, actual dates and shared dependencies. Determine whether a genuinely unaffected scope is independently demonstrable.

Completion / hold: A convenient administrative subset is not enough to conceal a systemic deficiency.

X16.2 Implement protection and truthful status

Issue authorised restriction or suspension and clear notices, maintain urgent communication, and prevent new affected claims during the held period.

Completion / hold: The public state follows the actual decision; lack of a live database connection does not defer necessary protection.

X16.3 Evaluate restoration evidence

Check cause correction, original failure retest, affected prior outputs, current authority, original expiry and the remaining technical basis.

Completion / hold: A payment, appeal or later successful task cannot restore status; all required restoration predicates must pass.

X16.4 Resolve within the controlling window

Preserve the original suspension clock and complete restoration, genuine unaffected restriction or withdrawal. Maintain remaining duties and record access.

Completion / hold: Administrative resets and silent extensions are prohibited; unknown terminal or technical states remain explicit.

Record contract: the actor records the input baseline, actual work, deviations, result and evidence link; the named receiving function acknowledges access and the permitted next action. A returned or incomplete handover retains the original event history. Use the associated FR modules and RG record links; no document or database field confers actual authority.

AF-AST-PR-021 — Credential, Registry and Mark Approval

Implementation basis: 28.1 (p. 45); 28.2 (p. 46); 28.3 (p. 46); 28.4 (p. 46); 28.5 (p. 46); 56.3 (p. 81); 62.5 (p. 89); 63.2 (p. 90); 80.4 (p. 124)

X21.1 Reconcile credential instruction to the decision

Verify exact holder, issuer, outcome class, object, configuration, family/module, domain/site, criteria and genuine dates.

Completion / hold: A profile title or cover image does not authorise a wider claim.

X21.2 Maintain independent state domains

Keep application, evidence acceptance, technical requirement state, credential status, operational asset state and mark permission distinct.

Completion / hold: Received or reviewed evidence cannot automatically become PASS or an active credential.

X21.3 Control artwork and public projection

Use approved AF artwork, legible identifiers and precise scope wording; provide sufficient public boundaries without disclosing protected detail.

Completion / hold: Public text must not imply unassessed all-space coverage, governmental permission or unevidenced recognition.

X21.4 Test correction and adverse events

Challenge expired/suspended reprints, stale imports, duplicate identities, missing decisions and pending appeals. Retain history and timely notices.

Completion / hold: Only an authentic authorised decision changes status; a new file date never revives authority.

Record contract: the actor records the input baseline, actual work, deviations, result and evidence link; the named receiving function acknowledges access and the permitted next action. A returned or incomplete handover retains the original event history. Use the associated FR modules and RG record links; no document or database field confers actual authority.

5 Workflow and relationship diagram

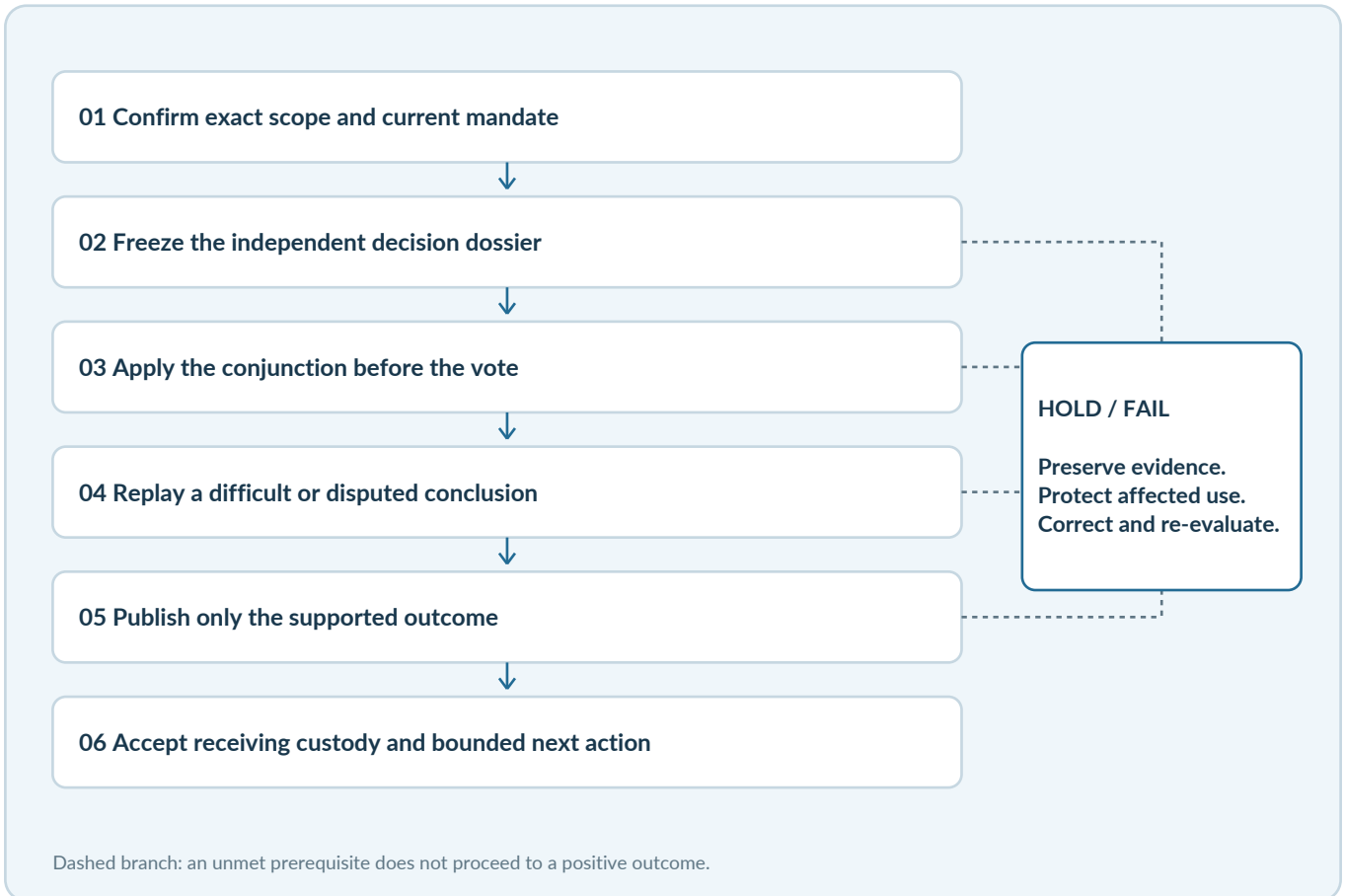
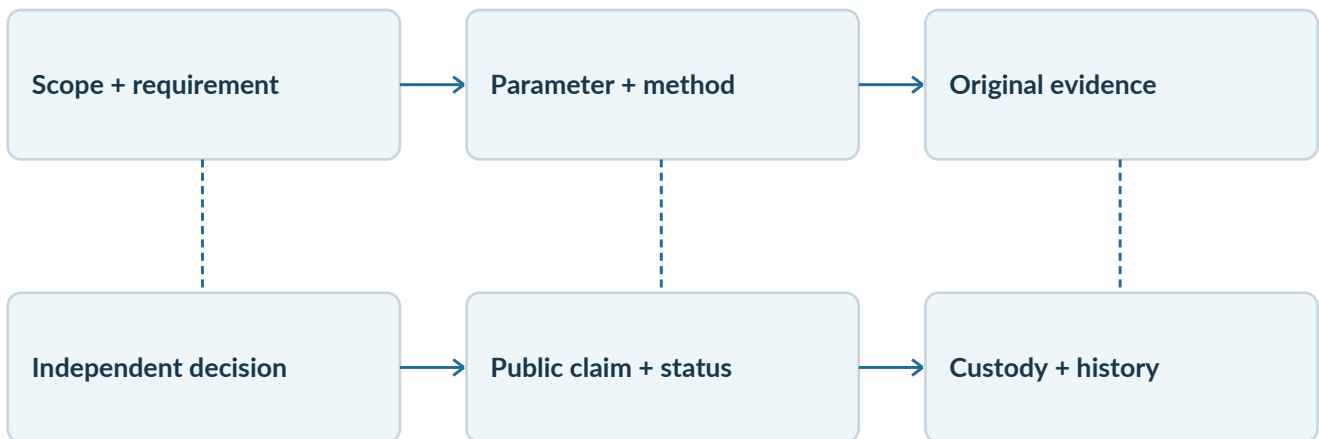


Figure — Implementation sequence for AF-AST-PR-014. Explanatory diagram; the source prerequisites and actual authority remain controlling.



Each relationship carries object identity, controlled version, actual event time and purpose-specific validity.

Figure — Scope-to-custody evidence relationships. A relationship is validated for its decision purpose, not merely because two identifiers exist.

6 Worked recording and calculation examples

The worked calculations below reproduce the supplied standard's Annex AM examples. Charted extensions are newly computed synthetic illustrations of those equations, not measured mission performance or new universal limits. A result is usable only when the actual inputs, model, units, uncertainty and approved application predicate are valid. A successful arithmetic check is not field validation.

AM.Q01 Measurement uncertainty and covariance

Source: ASTRA Annex AM, Q01, page 200. All numerical inputs in this example are synthetic.

$$u_c^2 = \sum (c_i^2 u_i^2) + 2\sum (i < j) (c_i c_j \text{cov}_{ij})$$

$$U = k u_c$$

Variables and units

u_i is a standard uncertainty; c_i is a sensitivity coefficient; cov_{ij} is covariance; k is the justified coverage factor. Variance terms carry squared output units.

Example inputs

Synthetic direct sum: $c_1=c_2=1$; $u_1=0.003$ mm; $u_2=0.004$ mm. First assume independence, then correlation $\rho=0.5$. Illustrative $k=2$.

Calculation and checks

1. Independent variance = $0.003^2 + 0.004^2 = 0.000025$ mm².
2. $u_c = 0.005$ mm; $U = 0.010$ mm for the stated k .
3. Correlated covariance = $0.5 \times 0.003 \times 0.004 = 0.000006$ mm².
4. Correlated variance = $0.000025 + 2 \times 0.000006 = 0.000037$ mm².
5. Correlated $u_c = 0.0060827625303$ mm; $U = 0.0121655250606$ mm.

Decision interpretation: The correlated model produces a larger uncertainty. No PASS/FAIL follows until an approved specification and decision rule are applied.

Validity limits: The linear propagation model requires a valid measurement function and adequate approximation. $k=2$ is not a universal guarantee of 95% coverage. Known bias requires correction or explicitly justified treatment; uncertainty does not conceal missing requirements.

ASTRA connections: 9.4–9.5; Annex G; 62; 77

Standard and expanded uncertainty

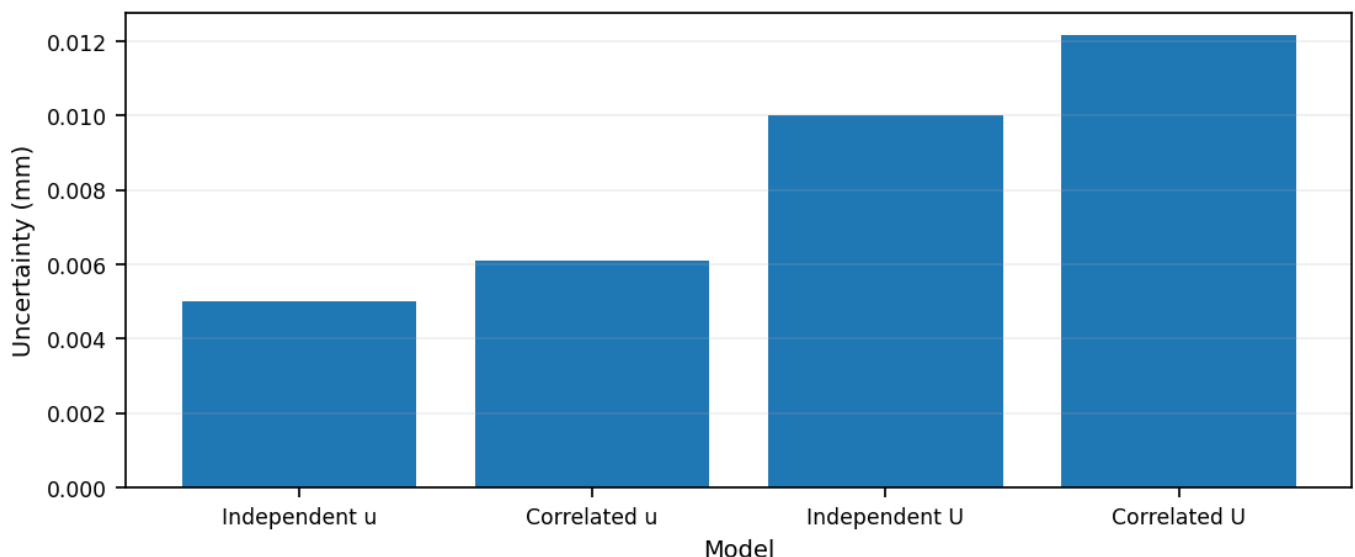


Figure Q01 — Synthetic visualisation. The axes and stated scenario define the quantity; no graph is an accreditation score, approved operating envelope or evidence of a real mission.

Local replay record: retain the actual input manifest, source versions, calculation version, unit checks, independent recomputation, expected/observed boundary results, limitations and decision authority. Do not overwrite the teaching inputs as though they were operational data.

AM.Q02 Inclusive limits and four distinct measurement outcomes

Source: ASTRA Annex AM, Q02, page 201. All numerical inputs in this example are synthetic.

PASS: $y - U \geq L$ AND $y + U \leq H$

FAIL: $y + U < L$ OR $y - U > H$

Otherwise: HOLD; invalid evidence also results in HOLD

Variables and units

L and H are inclusive specification limits; y is a corrected result; U is a non-negative expanded uncertainty with stated coverage.

Example inputs

Synthetic specification [49.970, 50.030] mm; U=0.004 mm. Results y=50.024, 50.028, 50.036 and 50.026 mm.

Calculation and checks

1. $50.024 \pm 0.004 \rightarrow [50.020, 50.028]$ mm: PASS.
2. $50.028 \pm 0.004 \rightarrow [50.024, 50.032]$ mm: HOLD, interval overlaps the upper limit.
3. $50.036 \pm 0.004 \rightarrow [50.032, 50.040]$ mm: FAIL, interval entirely above the limit.
4. $50.026 \pm 0.004 \rightarrow [50.022, 50.030]$ mm: PASS; equality is inside the inclusive upper bound.

Decision interpretation: Neither the overlapping interval nor an invalid run is rounded into acceptance. N/A is an applicability decision, not a measurement outcome.

Validity limits: Use actual endpoints for asymmetric intervals. For an upper-only limit, PASS requires the upper endpoint at or below the limit and FAIL the lower endpoint above it. A coverage interval is not automatically a probability that this particular item conforms.

ASTRA connections: Annex G; 62.3–62.5; 77.6

Inclusive full-interval decisions

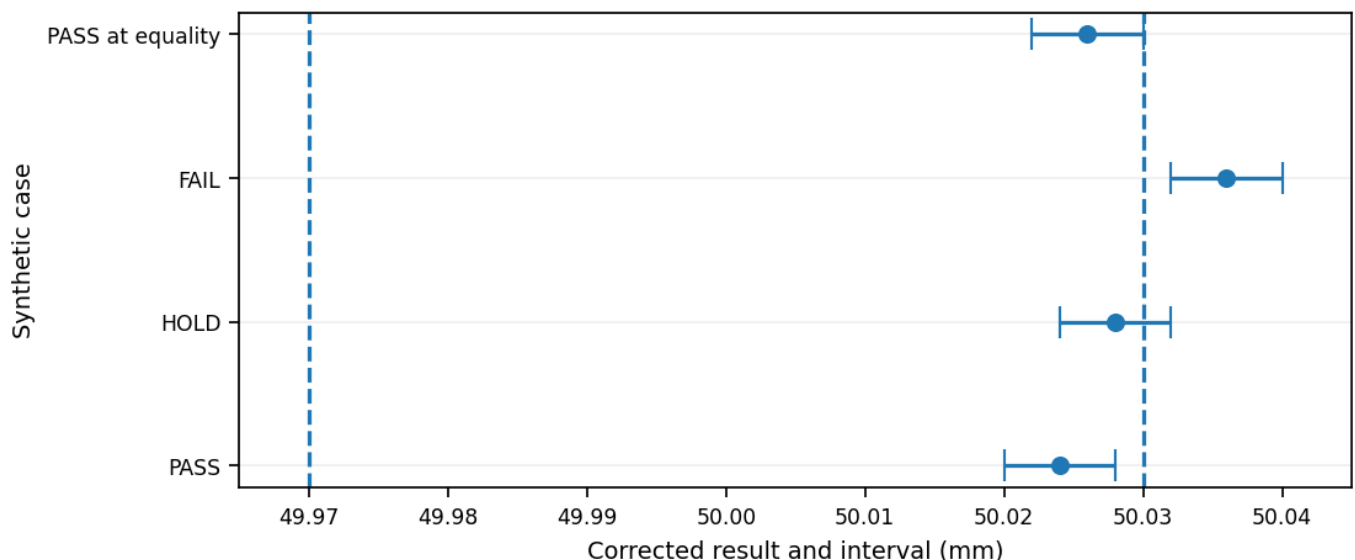


Figure Q02 — Synthetic visualisation. The axes and stated scenario define the quantity; no graph is an accreditation score, approved operating envelope or evidence of a real mission.

Local replay record: retain the actual input manifest, source versions, calculation version, unit checks, independent recomputation, expected/observed boundary results, limitations and decision authority. Do not overwrite the teaching inputs as though they were operational data.

AM.Q03 Positive-decision conjunction and essential failure

Source: ASTRA Annex AM, Q03, page 202. All numerical inputs in this example are synthetic.

$G = S \wedge P \wedge E \wedge F \wedge C \wedge I \wedge A$

Requirement completion = completed applicable rows / all applicable rows

Variables and units

S=valid scope; P=all predicates passed; E=adequate valid evidence; F=all in-scope findings closed; C=competence; I=independence; A=actual authority.

Example inputs

A synthetic file has 200 applicable rows; 190 are complete. One remaining row concerns an essential protective control. Six other gate groups are true.

Calculation and checks

1. Completion = $190/200 = 0.95 = 95\%$.
2. The unverified essential row makes P false and E false for the requested conclusion.
3. $G = \text{true false false} \dots = \text{false}$.

Decision interpretation: No positive grant. The completion percentage is a planning measure only. A conditional development permission is a separate bounded action, not a conformity certificate.

Validity limits: No averaging, vote or commercial action can change a false mandatory gate. N/A requires independent approval of the absent trigger; it is not a way to remove unfinished work.

ASTRA connections: 15.2; Annex G.1; 62.5; 80

Completion is not the grant decision

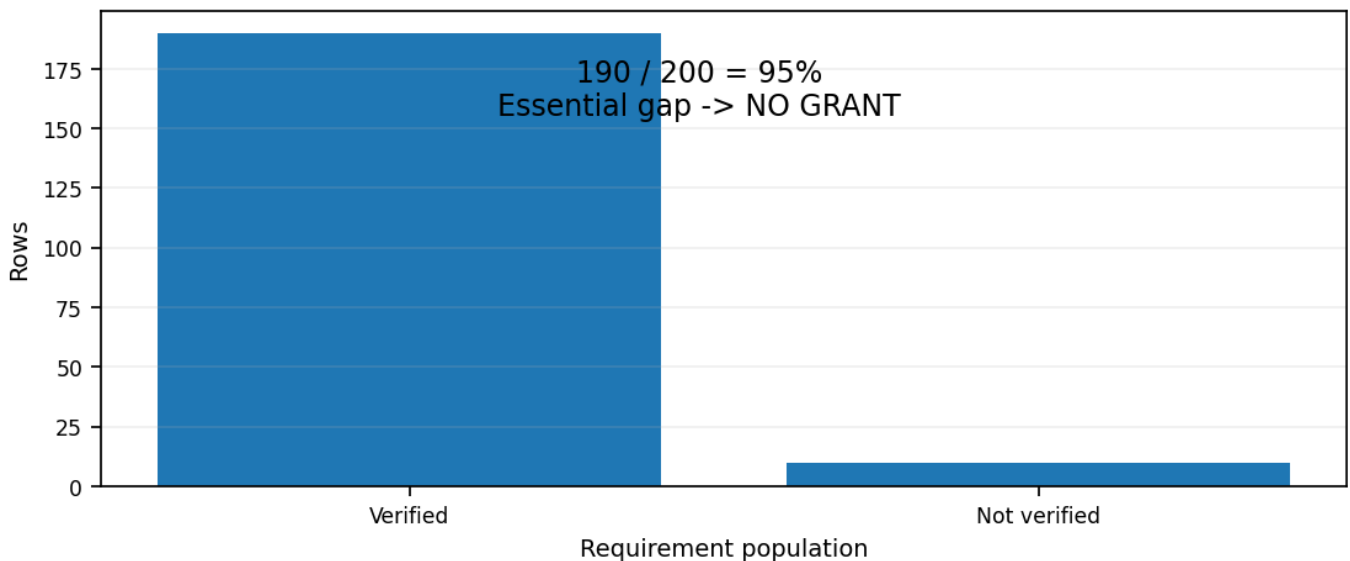


Figure Q03 – Synthetic visualisation. The axes and stated scenario define the quantity; no graph is an accreditation score, approved operating envelope or evidence of a real mission.

Local replay record: retain the actual input manifest, source versions, calculation version, unit checks, independent recomputation, expected/observed boundary results, limitations and decision authority. Do not overwrite the teaching inputs as though they were operational data.

AM.Q04 Committee arithmetic and accreditation panels

Source: ASTRA Annex AM, Q04, page 203. All numerical inputs in this example are synthetic.

Substantive participation minimum = $\text{ceil}(2N/3)$

Affirmative minimum = $\text{ceil}(2V/3)$

Variables and units

N is the eligible committee population; V is the number of substantive yes/no votes. These equations concern the technical committee, not an applicant panel.

Example inputs

Synthetic committee: N=9, V=6, yes=4, no=2. Separate accreditation panel: three eligible members, two affirmative and one adverse.

Calculation and checks

1. Participation: $\text{ceil}(2 \times 9 / 3) = 6$; actual V=6 meets it.
2. Affirmative: $\text{ceil}(2 \times 6 / 3) = 4$; actual yes=4 meets it.
3. Accreditation panel: all three must participate; at least two support and all technical gates must pass.
4. Two participating panel members voting yes do not form a valid three-person panel.

Decision interpretation: The committee arithmetic passes for the stated case. The separate panel can decide positively only if technical gates and eligibility are all established.

Validity limits: Abstentions are not substantive committee yes/no votes. Rounding is upward. A mathematical majority never resolves missing technical evidence or an ineligible member.

ASTRA connections: 3.4; 4.3; 15.3; Annex B

Committee participation threshold

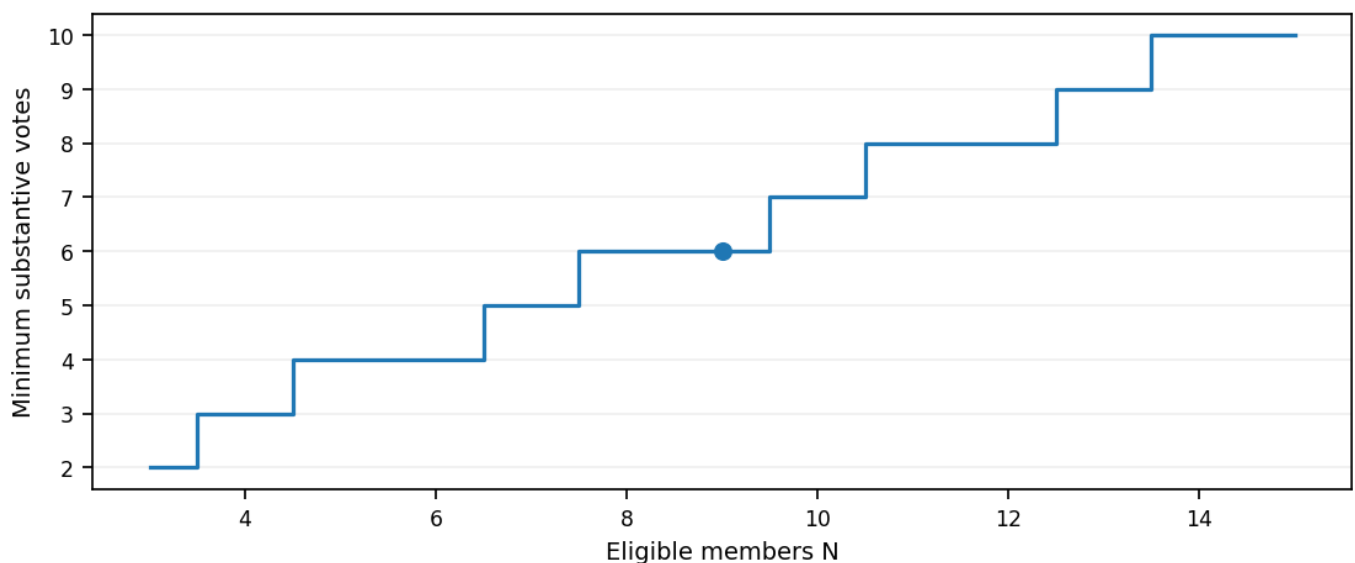


Figure Q04 – Synthetic visualisation. The axes and stated scenario define the quantity; no graph is an accreditation score, approved operating envelope or evidence of a real mission.

Local replay record: retain the actual input manifest, source versions, calculation version, unit checks, independent recomputation, expected/observed boundary results, limitations and decision authority. Do not overwrite the teaching inputs as though they were operational data.

AM.Q05 Productive evaluation time without double counting

Source: ASTRA Annex AM, Q05, page 204. All numerical inputs in this example are synthetic.

$$T_{\text{eval}} = \sum h_i / 8 \text{ evaluator-days}$$

Total resource = evaluation + separate reporting/review/travel resources

Variables and units

h_i are distinct productive technical person-hours. Shared tasks are counted once unless distinct real work is documented.

Example inputs

Synthetic tasks: 12, 12, 12, 8 and 4 productive hours. Report 6 h; independent review 5 h; panel 3 person-hours.

Calculation and checks

1. Evaluation hours = $12+12+12+8+4 = 48$ h.
2. $T_{eval} = 48/8 = 6$ evaluator-days.
3. Separate report/review/panel time = $6+5+3 = 14$ person-hours.
4. Total stated technical resources = 62 person-hours before travel and other separately justified work.

Decision interpretation: Six evaluator-days describes only this synthetic activity breakdown. It is not a universal minimum or quotation.

Validity limits: Do not count a trainee as an independent productive assessor or two passive observers as two completed tasks. Calendar duration, person-hours and evaluator-days are distinct.

ASTRA connections: 12.4; Annex F.1; 58.2

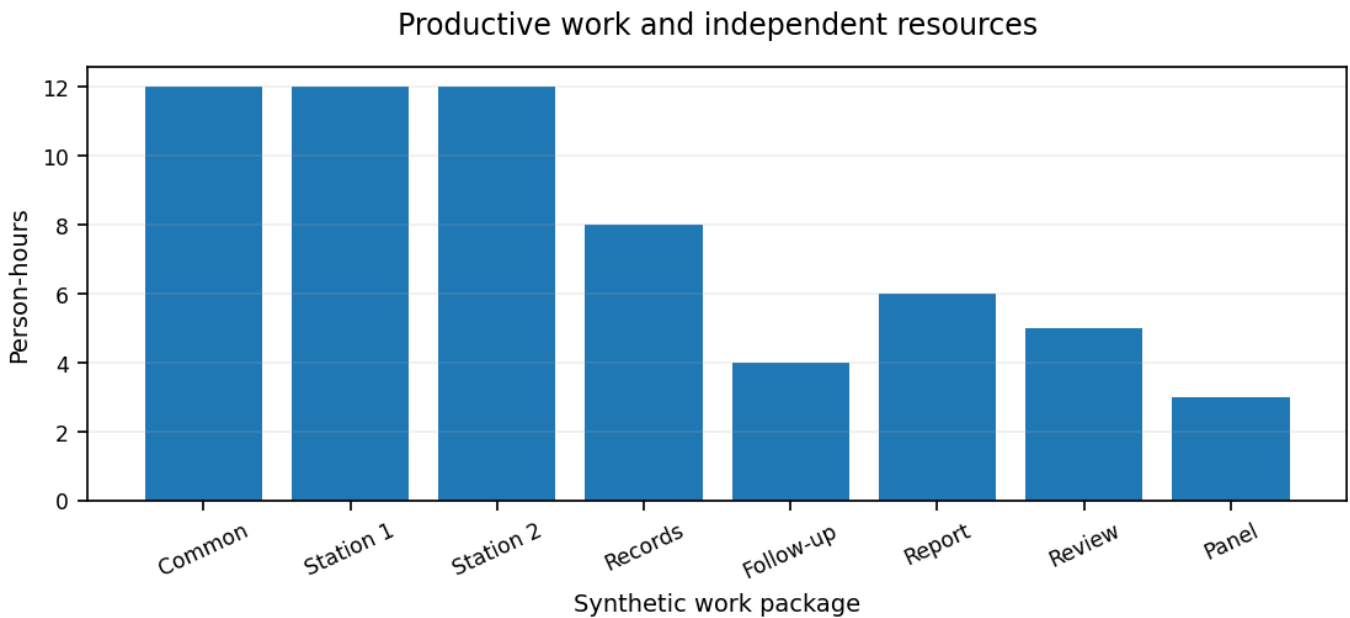


Figure Q05 — Synthetic visualisation. The axes and stated scenario define the quantity; no graph is an accreditation score, approved operating envelope or evidence of a real mission.

Local replay record: retain the actual input manifest, source versions, calculation version, unit checks, independent recomputation, expected/observed boundary results, limitations and decision authority. Do not overwrite the teaching inputs as though they were operational data.

7 Missing, invalid and prohibited input cases

Challenge	Expected handling	Evidence retained
PR-014: Freeze the independent decision dossier — required basis missing	A missing essential source, unresolved configuration or unsupported exclusion keeps the dependent decision on HOLD.	Original input, unresolved value, affected requirement and scope; named action owner.
PR-014: Publish only the supported outcome — handover or review incomplete	Public wording and digital status cannot extend the decision or imply operational permission.	Expected and observed state; independent replay; correction/retest; receiving acknowledgement.
PR-015: Freeze the actual cycle baseline — required basis missing	Bookings and payment do not fulfil surveillance or extend validity.	Original input, unresolved value, affected requirement and scope; named action owner.
PR-015: Renew without manufactured continuity — handover or review incomplete	Restoration or reprinting is not renewal; operational life and specialist permissions remain separate.	Expected and observed state; independent replay; correction/retest; receiving acknowledgement.
PR-016: Define the affected boundary — required basis missing	A convenient administrative subset is not enough to conceal a systemic deficiency.	Original input, unresolved value, affected requirement and scope; named action owner.
PR-016: Resolve within the controlling window — handover or review incomplete	Administrative resets and silent extensions are prohibited; unknown terminal or technical states remain explicit.	Expected and observed state; independent replay; correction/retest; receiving acknowledgement.
PR-021: Reconcile credential instruction to the decision — required basis missing	A profile title or cover image does not authorise a wider claim.	Original input, unresolved value, affected requirement and scope; named action owner.
PR-021: Test correction and adverse events — handover or review incomplete	Only an authentic authorised decision changes status; a new file date never revives authority.	Expected and observed state; independent replay; correction/retest; receiving acknowledgement.

Before local reliance, also select every relevant AP01–AP48 challenge in the core. Keep fictional tests isolated from live credentials, commands and recipients. For each test define the requirement, precondition, expected response, execution steps, actual observations, evidence, defect consequence, correction, retest and acceptance. This publication supplies test designs and examples, not completed local validation records.

F1 Retained record fields

Existing field identifiers and meanings are retained for continuity with the earlier PDF forms and register payloads. The larger response areas below are blank. Enter authentic information, link original evidence and use controlled continuations when the visible area is insufficient. Do not use the edition date as an actual case, observation or decision date.

Retained fields 1 onward

Dataset / entry ID / parent case or object

Identify the actual source records and responsible reviewer for each element named in this field. Keep unknowns, rejected evidence and incomplete receiving actions visible; a completed narrative is not proof of underlying work.

Profile / configuration / site and outcome boundary

Record the precise as-designed, built, tested, loaded, delivered or operated state relevant to the decision. Link versioned hardware, software, parameters, material history and interfaces; list differences and retained/new evidence explicitly.

Field name(s), actual value(s), units and source version

Identify the actual source records and responsible reviewer for each element named in this field. Keep unknowns, rejected evidence and incomplete receiving actions visible; a completed narrative is not proof of underlying work.

Original evidence references and purpose-specific state

Identify contemporaneous raw records, actual performer, object and configuration, conditions, timestamps, transformations and available originals. Distinguish observation, model inference, operator statement and synthetic material; preserve failed and invalid attempts.

Relevant actual event dates and declared time basis

Identify the actual source records and responsible reviewer for each element named in this field. Keep unknowns, rejected evidence and incomplete receiving actions visible; a completed narrative is not proof of underlying work.

Required relationship checks and unresolved exceptions

Identify the actual source records and responsible reviewer for each element named in this field. Keep unknowns, rejected evidence and incomplete receiving actions visible; a completed narrative is not proof of underlying work.

Reviewer / authority / actual acceptance reference

Identify the frozen dossier, current scope and source basis, reviewer competence and conflicts, all mandatory child states, finding closure and actual decision authority. Record reasons, dissent, exact limitations and genuine event time; a vote does not create evidence.

Correction history / affected recipients / custody

Retain the measurement function, raw and corrected values, units, uncertainty sources, sensitivity and dependence, coverage interpretation and unrounded computation. Independently check the applicable model and boundary predicate; invalid inputs or overlap remain HOLD where required.

Retained fields 9 onward

Entry ID, parent links and actual event for Decisions

Identify the actual source records and responsible reviewer for each element named in this field. Keep unknowns, rejected evidence and incomplete receiving actions visible; a completed narrative is not proof of underlying work.

Actual field values – Decisions

reason. Use additional controlled sheets for repeated entries. Identify the actual source records and responsible reviewer for each element named in this field. Keep unknowns, rejected evidence and incomplete receiving actions visible; a completed narrative is not proof of underlying work.

Review, limitations, correction and custody – Decisions

Retain the measurement function, raw and corrected values, units, uncertainty sources, sensitivity and dependence, coverage interpretation and unrounded computation. Independently check the applicable model and boundary predicate; invalid inputs or overlap remain HOLD where required.

Entry ID, parent links and actual event for Credentials

Identify the actual source records and responsible reviewer for each element named in this field. Keep unknowns, rejected evidence and incomplete receiving actions visible; a completed narrative is not proof of underlying work.

Actual field values – Credentials

additional controlled sheets for repeated entries. Identify the actual source records and responsible reviewer for each element named in this field. Keep unknowns, rejected evidence and incomplete receiving actions visible; a completed narrative is not proof of underlying work.

Review, limitations, correction and custody — Credentials

Retain the measurement function, raw and corrected values, units, uncertainty sources, sensitivity and dependence, coverage interpretation and unrounded computation. Independently check the applicable model and boundary predicate; invalid inputs or overlap remain HOLD where required.

Retained fields 15 onward

Entry ID, parent links and actual event for Claims and permissions

Identify the actual scoped permission, holder, issuing authority, validity and relevant limitation. Obtain competent local review for legal terms and restricted activity. ASTRA publication or membership is not a statutory operating permission.

Actual field values — Claims and permissions

Identify the actual scoped permission, holder, issuing authority, validity and relevant limitation. Obtain competent local review for legal terms and restricted activity. ASTRA publication or membership is not a statutory operating permission.

Review, limitations, correction and custody — Claims and permissions

Identify the actual scoped permission, holder, issuing authority, validity and relevant limitation. Obtain competent local review for legal terms and restricted activity. ASTRA publication or membership is not a statutory operating permission.

Entry ID, parent links and actual event for Status events

Record exact affected scope, current and prior states, original decision/expiry and actual surveillance completions, changes, action owners and notices. Restoration does not validate a suspended interval or extend expiry without the required renewal.

Actual field values — Status events

Record exact affected scope, current and prior states, original decision/expiry and actual surveillance completions, changes, action owners and notices. Restoration does not validate a suspended interval or extend expiry without the required renewal.

Review, limitations, correction and custody — Status events

Retain the measurement function, raw and corrected values, units, uncertainty sources, sensitivity and dependence, coverage interpretation and unrounded computation. Independently check the applicable model and boundary predicate; invalid inputs or overlap remain HOLD where required.

F2 All-domain assurance extensions

Complete each triggered extension, or link an independently approved non-applicability record. These fields are added to support Clauses 62–80 and Annexes AK–AR. A field may reference an equivalent controlled dossier; sensitive technical information need not be copied into every form.

Mission/domain applicability

Annex AK domain ID(s), activity and retained duty; record absent triggers with independent exclusion approval. Unknown applicability is HOLD.

Phase and operating-mode matrix

Identify normal, degraded, dormant, transport, test, service, emergency and terminal states relevant to the exact object. Link each required cell to evidence.

Complete atomic requirement population

Source clause and child IDs; all separately testable conditions; accountable owner; source version and exact intended conclusion.

Prospective technical parameters

Annex AO groups; actual values or defined attributes; units, bounds and inclusivity; conditions; derivation and genuine approval before evaluation.

Evidence validity and purpose

Original source IDs, configuration, method, performer authority at event time, accessible originals, uncertainty and limits. Received does not mean accepted.

Accepted predicate and uncertainty rule

Approved numerical or attribute predicate; unrounded inputs; uncertainty/dependence; validity domain; prospective alternative-rule authorisation where used.

Current child states and unresolved conditions

PASS / FAIL / HOLD / independently approved N/A by child. Blank is unrecorded. Identify every open finding, missing parameter and unresolved limitation.

Configuration and environment difference matrix

As-designed/built/tested/delivered/operated states; source or software changes; retained and invalidated evidence; required new demonstration.

Resource and shared-dependency review

Concurrent power/energy/data/time/consumables or staff duties, common causes, reserve ownership and support availability; do not count one reserve twice.

Command, remote evidence or service completion

Actual target, actor, event and receipt times, authority, transmission/receipt/execution/completion distinction, observability and unknown physical state.

Adverse-case and boundary-test record

Relevant AP case IDs plus local challenges; preconditions, expected and observed response, raw evidence, defect, correction, retest and genuine acceptance.

Independent calculation and decision replay

Frozen inputs and versions, independent recalculation, boundary result, differences found, disposition and reviewer's actual authority.

Claim and state projection

Exact object, outcome class, family/module/domain, permitted wording, restrictions, actual dates and public/protected information boundary.

Receiving acceptance and remaining duties

Actual recipient, usable evidence access, accepted custody, incomplete tasks, terminal-state obligations, notifications and continuing owner.

Original-versus-current source distinction

Identify retained original records, transparent corrections, changed assumptions and effect on earlier outputs; do not backdate later good evidence.

Authentic approval instrument

Reference actual signed or authenticated approval and scoped authority. A typed name, PDF timestamp or blank form is not approval.

F3 Process-specific extension entries

PR-014 X1 — Freeze the independent decision dossier

Reconcile exact scope, requirement population, all triggered parameters, evidence versions, configuration, observations, open issues and accountable roles. Completion: A missing essential source, unresolved configuration or unsupported exclusion keeps the dependent decision on HOLD.

PR-014 X2 — Apply the conjunction before the vote

Require all applicable mandatory rows PASS, approved N/A reasons, verified closure, competent independent authority and required panel participation. Completion: A numerical majority or high score cannot supply absent evidence or waive a mandatory condition.

PR-014 X3 — Replay a difficult or disputed conclusion

Use the same inputs, rule, uncertainty and current role authority to reconstruct the state. Identify the exact differing assumption before accepting agreement. Completion: Unresolved essential dissent results in more work, a real bounded scope or HOLD, never coerced consensus.

PR-014 X4 — Publish only the supported outcome

Record genuine decision, issue and expiry/instance, exact class and limitations. Send authenticated instructions to the registry and relevant recipients. Completion: Public wording and digital status cannot extend the decision or imply operational permission.

PR-015 X1 — Freeze the actual cycle baseline

Record original decision, maximum duration, selected shorter intervals, criticality and last completed surveillance by independent outcome. Completion: Bookings and payment do not fulfil surveillance or extend validity.

PR-015 X2 — Re-evaluate mission and technical change

Compare environment, duration, fleet, suppliers, task/site, model and monitoring changes. Preserve evidence retained, invalidated and newly required. Completion: New domain or materially changed duty remains outside the claim until evaluated and independently accepted.

PR-015 X3 — Plan and complete meaningful surveillance

Sample actual routine/adverse work, current people, qualified methods, hidden dependencies and necessary local delivery rather than unchanged manuals only. Completion: All required scope coverage and clocks must be satisfied; missing completion triggers the controlling status action.

PR-015 X4 — Renew without manufactured continuity

Complete findings closure, independent review and genuine decision. A late renewal preserves the expired interval and original historical basis. Completion: Restoration or reprinting is not renewal; operational life and specialist permissions remain separate.

PR-016 X1 — Define the affected boundary

Link the triggering concern to objects, sites, methods, states, actual dates and shared dependencies. Determine whether a genuinely unaffected scope is independently demonstrable. Completion: A convenient administrative subset is not enough to conceal a systemic deficiency.

PR-016 X2 — Implement protection and truthful status

Issue authorised restriction or suspension and clear notices, maintain urgent communication, and prevent new affected claims during the held period. Completion: The public state follows the actual decision; lack of a live database connection does not defer necessary protection.

PR-016 X3 — Evaluate restoration evidence

Check cause correction, original failure retest, affected prior outputs, current authority, original expiry and the remaining technical basis. Completion: A payment, appeal or later successful task cannot restore status; all required restoration predicates must pass.

PR-016 X4 — Resolve within the controlling window

Preserve the original suspension clock and complete restoration, genuine unaffected restriction or withdrawal. Maintain remaining duties and record access. Completion: Administrative resets and silent extensions are prohibited; unknown terminal or technical states remain explicit.

PR-021 X1 — Reconcile credential instruction to the decision

Verify exact holder, issuer, outcome class, object, configuration, family/module, domain/site, criteria and genuine dates. Completion: A profile title or cover image does not authorise a wider claim.

PR-021 X2 — Maintain independent state domains

Keep application, evidence acceptance, technical requirement state, credential status, operational asset state and mark permission distinct. Completion: Received or reviewed evidence cannot automatically become PASS or an active credential.

PR-021 X3 — Control artwork and public projection

Use approved AF artwork, legible identifiers and precise scope wording; provide sufficient public boundaries without disclosing protected detail. Completion: Public text must not imply unassessed all-space coverage, governmental permission or unevidenced recognition.

PR-021 X4 — Test correction and adverse events

Challenge expired/suspended reprints, stale imports, duplicate identities, missing decisions and pending appeals. Retain history and timely notices. Completion: Only an authentic authorised decision changes status; a new file date never revives authority.

F4 Controlled continuation and receiving record

Continuation identity and parent link

Unique continuation ID, parent form and field names; actual author, time, version and access class.

Complete visible narrative / data dictionary

Include all text needed to interpret the result. Attach clearly identified tables or source data when a visible field is too small.

Independent response and limitations

Record reviewer, actual findings, disposition, scope limits and open conditions; maintain protected dissent.

Receiving acknowledgement

Actual recipient, accepted responsibilities, evidence access check, approval reference and time.

Appendix A – Controlling source requirements

The following text is reproduced from the supplied ASTRA FIRST EDITION. The clause identifier and page refer to that 248-page source. These excerpts and their evidence fields must be read with all triggered normative annexes. Newly authored implementation steps elsewhere in this document do not amend the core standard.

3.4 – Case separation and decision panels

Source: AF-AST-STD-001, page 13.

Evaluation, independent review, decision and appeal shall be assigned through explicit role checks. Final accreditation grants, renewals, extensions and contested adverse decisions shall use three independent authorised panel members: all three participate and at least two support the reasoned outcome, with every mandatory technical gate met. A technical reviewer may serve on that panel only when independent of evaluation and separately authorised. Other outcome classes use the independent authority specified in the released profile. A majority vote cannot resolve missing essential technical evidence by preference.

Required evidence: Assignment matrix; independent review; three-person participation and votes; gate record.

14.2 – Immediate protection and notifications

Source: AF-AST-STD-001, page 25.

Upon a credible critical concern, the responsible organisation shall protect people and affected work immediately, preserve evidence and notify required recipients. A holder shall notify its operator within 24 hours of awareness; earlier applicable duties remain. On a substantiated critical concern, the operator shall suspend the affected status or impose an effective evaluated restriction within 24 hours. An independent duty function with a pre-existing mandate may act urgently, followed by prompt independent review.

Required evidence: Awareness and action times; containment; notification/acknowledgement; status decision.

15.1 – Review dossier

Source: AF-AST-STD-001, page 26.

The independent reviewer shall examine the exact scope and profile, lawful authority, assessor competence, conflicts, coverage, method validity, evidence, uncertainty, findings, corrections, limitations and proposed claim. All essential records shall be accessible through authorised means. Return incomplete or inconsistent files for correction rather than infer missing results. Evidence reuse shall remain traceable to its original scope and limitations. The reviewed dossier shall be versioned so that the decision can later be reconstructed.

Required evidence: Independent review checklist; versioned dossier; unresolved issues and returned files.

15.2 – Positive-decision gate

Source: AF-AST-STD-001, page 27.

A positive grant, renewal or extension requires valid scope, all applicable criteria fulfilled, adequate evidence, closed in-scope nonconformities, sufficient independent competence and actual authority. Required operating and mark permissions shall be effective before the associated claim is used. This is a conjunction of conditions, not a weighted score. A genuinely bounded unaffected scope may be granted only after independent evaluation; it shall not conceal a systemic deficiency or imply success in the refused scope.

Required evidence: Completed gate; exact granted/refused boundary; authority and permission checks.

15.3 – Panel and dissent

Source: AF-AST-STD-001, page 27.

Apply the three-member accreditation panel rule in Clause 3.4. Members shall receive adequate records and competent technical support and shall not delegate votes. Record attendance, conflicts, affirmative/adverse votes, abstentions, reasons and technical dissent. A two-to-one outcome is possible only when every mandatory gate is substantiated; unresolved essential technical uncertainty requires hold or further work. The chair has no casting vote that can replace absent technical evidence or an ineligible member.

Required evidence: Panel record; all-member participation; technical dissent resolution; actual decision.

15.5 – Decision date and communication

Source: AF-AST-STD-001, page 27.

Record the actual decision date, issue date, effectivity, expiry or instance boundary, criteria version, responsible issuer and signatory. Notify the applicant of reasons, scope, continuing duties and remedy route. Public status shall match the decision and be updated within two calendar days of a status change, while urgent holder notice is immediate. An invoice date, ceremonial date, signature-image insertion or document reprint shall not become a fictitious conformity date.

Required evidence: Authenticated decision; notice; issue/expiry fields; timely registry instruction.

16.1 – Duration and basis

Source: AF-AST-STD-001, page 27.

Ongoing ASTRA recognition, qualification, certification or CAB accreditation under this common framework shall have a maximum 24-month period from the independent conformity decision, subject to a shorter profile interval and continued fulfilment. AF 9100 cases retain their controlling provisions. An instance result identifies its lot, serial, event, test or historical statement and does not acquire a universal two-year technical validity. Credential duration never extends an equipment life limit, calibration, statutory authorisation or qualified process window.

Required evidence: Ongoing/instance classification; exact dates; linked technical limits.

16.2 – Surveillance frequency and coverage

Source: AF-AST-STD-001, page 28.

Complete ongoing surveillance at intervals no greater than 12 months, reduced to six months for high-consequence, materially novel or significant competence/integrity exposure. Apply the AF 9100 C0–C3 rules when that standard is used. Mixed scopes follow the shortest triggered interval unless genuinely separated. Reassess actual operation, technical witnessing, changes, adverse results and controls; a document check or booked visit alone is not completed surveillance. Missing required completion triggers affected suspension.

Required evidence: Risk-based timetable; completed technical coverage; changed-scope review; overdue action.

16.3 – Material change and notification

Source: AF-AST-STD-001, page 28.

Planned changes shall be notified early enough for required prior review and before using an expanded claim. Unplanned non-critical material changes shall be notified within five calendar days after awareness; critical concerns follow the 24-hour rule. Evaluate ownership, responsible entity, location, methods, key personnel, digital platforms, aircraft/task capability, educational delivery and environmental boundaries. An unchanged commercial name shall not conceal a different technical basis.

Required evidence: Change notification; impact; prior approval; updated scope and evidence.

16.4 – Renewal and interruption

Source: AF-AST-STD-001, page 28.

Plan renewal sufficiently early to complete evaluation, closure, independent review and decision before expiry; initiation at least 90 days beforehand is recommended, not a guarantee. If the renewal decision occurs after expiry, a visible gap remains and the new status starts no earlier than the actual decision. Relevant prior work may inform the review but not substitute for current demonstrated capability. No payment or appeal automatically extends validity.

Required evidence: Renewal plan; current evidence; closed findings; actual dates and disclosed gap.

16.5 – Suspension, restoration and withdrawal

Source: AF-AST-STD-001, page 28.

A suspension shall state scope, reason, prohibited claims, required actions and a resolution deadline no later than 90 days from the decision. Restore only after verified correction, affected-output review and a valid current basis; otherwise restrict to independently unaffected scope or withdraw. Repeated administrative resets are prohibited. Restoration without full renewal preserves the original expiry and does not validate the suspended interval. Technical containment and reporting continue independently of certificate administration.

Required evidence: Status notices; verified restoration; unaffected-scope rationale; historical continuity.

28.1 – Mandatory scope content

Source: AF-AST-STD-001, page 45.

Each outcome shall state holder and responsible issuer, unique identifier, exact class, family/module, criteria and version, evaluated object, site, technical activity, conditions/ranges, configuration or delivery version, period, decision/issue dates, status and restrictions. Identify ongoing expiry or instance boundary appropriately. The scope schedule forms part of the outcome and shall be available for verification without disclosing protected technical detail. Annex I supplies the minimum schema.

Required evidence: Decision-linked scope schedule; claim class; criteria/version; public/private split.

28.2 – Truthful public wording

Source: AF-AST-STD-001, page 46.

Public wording shall distinguish accredited assessment competence, recognised educational or operational capability, certified conformity and verified historical statements. A label shall not imply statutory approval, all-sector authority, guaranteed safety or recognition by an unevidenced third party. Group logos and commercial package titles shall not conceal excluded sites, tasks or programmes. Every claimed recognition or acceptance arrangement shall be supported by its actual written scope and current terms.

Required evidence: Approved claim; actual acceptance arrangement where claimed; limits clearly communicated.

28.3 – AF marks and authorised use

Source: AF-AST-STD-001, page 46.

Use only authorised AF artwork and approved scope-specific wording. Preserve shape, proportions, legibility and the required identifier; do not create an apparent new certification symbol or apply an organisational mark to imply product approval. Permission shall identify holder, purpose, media, period and restrictions. Suspension or withdrawal shall end affected current claims promptly. Historical factual statements shall state the actual period and status without presenting withdrawn authority as current.

Required evidence: Mark licence; approved artwork/use; monitoring; correction of misuse.

28.4 – Registry states and authenticity

Source: AF-AST-STD-001, page 46.

Maintain separate entity, application, profile, technical scope, decision, credential, authorisation and statement records. Public states shall distinguish active, restricted, suspended, expired, withdrawn and historical instance results. Applicant or pilot records shall not appear in a list of accredited holders. Validate signatures or other authentication, current status and permitted scope rather than treating a scanned certificate image as conclusive. Preserve corrections and prior states.

Required evidence: Validated registry; authenticated decision linkage; separate application/live status; history.

28.5 – Registry security, correction and availability

Source: AF-AST-STD-001, page 46.

Protect registry integrity through least-privilege access, attributable updates, version history and tested recovery. Update status within two calendar days of a decision and communicate urgent restrictions without waiting for a routine update. Correct misleading duplicates, stolen identities and altered certificates through controlled investigation. Provide an alternative verified status channel during outage without extending expiry. The existence of a digital record demonstrates a recorded decision, not universal technical truth.

Required evidence: Access/update logs; two-day control; recovery; corrected misuse and alternative verification.

56.3 – Decision and publication safeguards

Source: AF-AST-STD-001, page 81.

The workflow shall test valid scope, complete evidence, fulfilled criteria, closed findings, current competence, case independence and actual authority before publishing a positive outcome. Where a three-person panel is required, all eligible participation and votes shall be recorded. An automated check may flag or block a proposed instruction but shall not create the independent technical decision. Public information shall match the authorised decision and preserve restrictions, expiry and historical gaps.

Required evidence: Decision preflight; authentic decision instrument; panel record where required; public/private reconciliation.

58.5 – Continuing status and real chronology

Source: AF-AST-STD-001, page 83.

Surveillance, change, renewal, suspension, restoration and withdrawal shall preserve the controlling clocks in Clause 16 and Annex H. Booking an assessment is not its completion. Restoration does not extend original expiry without the required renewal or validate a suspended interval. Historical instance results shall retain their object and period rather than acquire a fictitious ongoing validity. Public status, urgent notices and protected case history shall remain consistent after every material event.

Required evidence: Authoritative cycle baseline; actual completions; status events; preserved gaps; notifications and public reconciliation.

62.4 – Four requirement states

Source: AF-AST-STD-001, page 88.

A requirement state shall be PASS, FAIL, HOLD or N/A. PASS means the approved predicate is satisfied by valid evidence. FAIL means valid evidence demonstrates that the predicate is not satisfied. HOLD means applicability, method, evidence, uncertainty or authority is not sufficiently resolved. N/A means the trigger and retained responsibility are absent and independent approval of that exclusion is recorded. Missing equipment, budget, access or time shall not justify N/A.

Verification: Execute the truth table in Annex AL using actual scope and evidence.

Acceptance / hold rule: Exactly one current state is assigned with reason and traceable evidence. All earlier states are retained.

62.5 – No compensation or favourable default

Source: AF-AST-STD-001, page 89.

A positive conformity decision shall require PASS for every applicable mandatory requirement, closure of every in-scope nonconformity, valid independent competence and actual authority. N/A rows shall have approved reasons; HOLD and FAIL rows shall not contribute a favourable default. Weighted scores, averages, majority votes, programme membership or good results in another discipline shall not compensate for an unmet condition.

Verification: Reconcile the complete requirement population with the decision dossier; test missing and negative cases.

Acceptance / hold rule: The Boolean conjunction in Annex AL is true. Otherwise no positive grant, renewal or extension is permitted.

62.7 – Decision replay and consistency

Source: AF-AST-STD-001, page 89.

A decision shall be reproducible from the same frozen requirements, parameter values, original evidence, calculation version, uncertainty model and role assignments. Two competent reviewers reaching different results shall identify the differing input, predicate, assumption or expertise before closure. Interpretation records may clarify a term but shall not change limits after results are known. Equation inputs shall retain unrounded values.

Verification: Independently replay a selected boundary case and reconcile every difference.

Acceptance / hold rule: The replay produces the same supported state, or the case remains HOLD pending a controlled technical resolution.

63.2 – Object and activity rather than a universal label

Source: AF-AST-STD-001, page 90.

The claimed object shall be identified as a system, subsystem, component, material, process, service, facility, software artefact, person, educational programme, assessment provider or statement. Record what is designed, built, tested, operated, maintained or retired, by whom and where. A phrase such as all space, space-qualified or complete mission assurance shall not replace the exact boundaries and limitations of the evaluated object.

Verification: Compare application, technical schedule, evidence and proposed public wording.

Acceptance / hold rule: The object and activities agree throughout the dossier; unsupported sector-wide or geographically unlimited claims are prohibited.

64.6 – Baseline maintenance and irreversible decisions

Source: AF-AST-STD-001, page 93.

Changes to mission duration, geometry, environment, operating mode, supplier or external service shall trigger a documented impact review. Before an irreversible commitment, the decision maker shall reconcile the current environmental baseline, actual configuration, evidence, reserves, unresolved issues and protective options. Commercial schedules shall not be used as substitute evidence.

Verification: Compare the frozen readiness dossier with the actually delivered configuration and latest accepted mission assumptions.

Acceptance / hold rule: Every essential gate is complete and all permitted actions are stated; otherwise the irreversible commitment remains blocked.

68.6 – Mission extension and terminal resources

Source: AF-AST-STD-001, page 101.

Before extending service, reassess remaining energy, support, communications, attitude capability, life, uncertainty, monitoring and resources required for terminal duties. The extension shall not consume a reserve already committed to a required protective or end-of-life function without authorised technical resolution. The decision shall preserve original life history.

Verification: Reconcile updated budgets, remaining-life evidence and terminal feasibility.

Acceptance / hold rule: Required continued-service and terminal predicates both pass; a commercially useful asset is not automatically eligible for extension.

68.7 – Status and long-term custody

Source: AF-AST-STD-001, page 101.

Closure shall record whether an asset is operating, restricted, dormant, disposed, lost or unknown using verified evidence and defined meanings. Loss of communication shall not be labelled successful disposal. Assign remaining notices, monitoring and records to an actual custodian. A closed commercial contract does not close an unresolved technical or environmental obligation.

Verification: Trace final-state evidence and accepted transfer of residual duties.

Acceptance / hold rule: Terminal claims match observed or explicitly bounded inferred states, and every continuing duty has a receiving owner.

77.8 – Independent campaign closure

Source: AF-AST-STD-001, page 119.

The final dossier shall reconcile configuration, criteria, valid results, adverse evidence, untested characteristics, uncertainty, concessions and open duties. Qualification, article acceptance, laboratory competence and ASTRA conformity shall retain separate decisions. A technical concession shall not be relabelled as fulfilment of the original criterion.

Verification: Perform independent requirement-by-requirement closure with actual decision authority.

Acceptance / hold rule: Every applicable gate for the exact claimed object passes; counts, percentages or programme completion dates alone cannot release the object.

78.6 – Monitoring, drift and adaptation

Source: AF-AST-STD-001, page 121.

Define detectable drift, changed exposure, failure signals, missing-data response, authority and reassessment triggers. Monitor what the method can actually observe, not every property inferred from a live dashboard. Adaptation outside the released envelope shall require renewed assurance before reliance. A monitoring gap shall not be treated as evidence of unchanged performance.

Verification: Review monitoring coverage, alert-to-action records and controlled changes.

Acceptance / hold rule: Essential performance and protection remain supported; otherwise restrict the affected use and assess earlier outputs.

79.3 – Loss of contact and uncertain physical state

Source: AF-AST-STD-001, page 122.

The operator shall define the distinction between missing data, confirmed failure, safe dormant state, lost asset and completed disposition. Preserve last valid observations, their age and uncertainty. The absence of an alarm or signal shall not establish safe state. An inference shall identify its model and limits and shall not be presented as direct observation.

Verification: Review the state-classification record against raw evidence and observability limits.

Acceptance / hold rule: Only a supported state is assigned; uncertain essential conditions retain UNKNOWN in operational records and HOLD in dependent acceptance.

79.4 – Affected populations and historical decisions

Source: AF-AST-STD-001, page 122.

An event shall be traced to affected configurations, fleet members, materials, methods, software, personnel, reports and prior decisions. Determine both occurrence and escape causes and test competing explanations. Changing a supplier, restarting a service or training one person shall not by itself close a shared systemic cause.

Verification: Inspect end-to-end dependency and look-back analysis with actual notifications.

Acceptance / hold rule: All materially dependent outputs are addressed; no valid adverse history is erased by later correction.

80.1 – One complete application schedule

Source: AF-AST-STD-001, page 124.

The schedule shall join the object tuple, F01–F08 selection, Annex AK domains, phase/mode matrix, required methods, parameter records, competence, evidence, independent decisions and continuing controls. All triggers in Annex AO shall be resolved. Shared records may be reused after relevance review, but shall not merge distinct objects, outcome classes or actual authority.

Verification: Reconcile the full schedule with Clauses 1, 4, 62 and 63 and Annex C.

Acceptance / hold rule: No essential scope, parameter, responsibility or evidence field remains undefined before a positive decision.

80.2 – Domain and verification completeness

Source: AF-AST-STD-001, page 124.

Map every applicable domain and requirement to valid verification and to an accountable conclusion. Treat domain counts, test counts and completed checklist percentages as planning measures only. Annex T is not exhaustive of all future methods; a newly discovered material mechanism shall create a controlled additional requirement and evidence task before the affected claim proceeds.

Verification: Perform forward and reverse traceability and inspect omitted-domain reasons.

Acceptance / hold rule: Every applicable condition passes or has a justified approved N/A; no HOLD or FAIL is hidden by a coverage percentage.

80.3 – Competent independent closure

Source: AF-AST-STD-001, page 124.

The independent reviewer shall have verified technical coverage, lawful evidence access and no prohibited case relationship. Technical dissent shall be resolved by evidence, corrected scope or further work. Where a three-person panel is required, all three eligible members shall participate and the established vote rule shall apply only after the technical gates are satisfied.

Verification: Check competence, conflict, access, panel and reasoned decision records.

Acceptance / hold rule: Both the technical conjunction and applicable authority/panel rules pass; a vote cannot cure absent evidence.

80.4 – Bounded claim and publication

Source: AF-AST-STD-001, page 124.

The outcome shall identify legal holder, issuer, object, configuration, family/module, domain, site or remote responsibility, criteria, limitations, actual dates and ongoing or instance basis. Public wording shall not imply unrestricted coverage of all space, universal safety, statutory permission or external recognition without evidence. The approved cover and edition label do not change those boundaries.

Verification: Compare the actual decision with credential, registry and all proposed public representations.

Acceptance / hold rule: Published scope and status exactly match the authorised decision and preserve every material restriction.

80.5 – Continuing conformity and change

Source: AF-AST-STD-001, page 124.

Maintain surveillance, technical validity, people, resources, configuration, monitoring and actual state history under the controlling clocks. Mission, environment, population or technology changes shall trigger impact review before expanded reliance. Restoration shall preserve expiry unless a full renewal has occurred and shall not validate the suspended interval.

Verification: Audit actual completion, change and status records rather than scheduled dates alone.

Acceptance / hold rule: The current claim remains fully supported; overdue or invalidated conditions trigger the applicable restriction, suspension or withdrawal.

Appendix B — Local adoption, validation and receiving acceptance

Gate	Required evidence	Outcome when incomplete
Authority and identity	Actual operator, scoped mandate, permissible result class, named owner, independent decision and remedy functions.	No live scope release.
Requirement population	All applicable clauses and annexes mapped to child conditions, with reasons and independent approval for exclusions.	HOLD the affected conclusion.
Parameters and methods	Prospective values/attributes; technical basis; valid methods; representativeness; calibration, uncertainty and approved predicates.	No dependent acceptance.
People and evidence	Current demonstrated competence; conflict clearance; original usable source evidence; actual configuration and event times.	Reassign or obtain sufficient evidence.
Local tools and tests	Actual deployment tested with positive, boundary, missing, invalid and prohibited inputs; original failed cases retested.	No consequential reliance on unaccepted tools.
Independent closure	Every mandatory requirement PASS, approved N/A, all in-scope nonconformities verified closed, panel rules where required.	No grant, renewal or extension.
Claims and continuity	Decision-linked scope/status; source history; genuine custody, receiving access, retention, urgent notices and terminal duties.	Restrict publication or transfer until resolved.

Record authentic approval and activation in AF-AST-FR-001 and AF-AST-SC-004 or an equivalent controlled record. The edition label is not an effective date for a particular case. Preserve historical decisions under their actual controlling basis; a newer document does not retroactively create missing competence or evidence. Source: Clauses 4, 31, 61, 62 and 80; Annexes P and AR.

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