



ASTRA

AEROSPACE STANDARD

PROCEDURE

Normative Development, Consultation and Profile Release

AF-AST-PR-002

FIRST EDITION

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Aviation / Space / Defense / Future systems

Publication identity and use

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Publication and operation	Prepared publication. Actual technical approval, consultation, institutional adoption, operational effectivity and individual scope activation require separate authentic records.

Purpose and application

Normative development and profile release across F01–F08, including the added technical subjects in core Clauses 32–80. An application-specific value and a programme-wide rule have different approval boundaries.

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 Scope, trigger and responsibility

Normative development and profile release across F01-F08, including the added technical subjects in core Clauses 32-80. An application-specific value and a programme-wide rule have different approval boundaries.

Trigger: A new profile, substantive requirement, changed limit or proposed interpretation enters development.

Accountable process owner: Standards Secretariat. Actual named appointments and deputies are recorded separately. The process owner coordinates execution; technical review, independent conformity decisions and operational permissions retain their separate mandates.

Input	Output / destination
Actual request or triggering event, scope and current technical basis	A traceable process record linked to its case/object and the required form modules.
Competence, conflict, authority and access evidence	Approved assignment and lawful access before affected work begins.
Original observations, technical results, limitations and prior history	Reasoned accept/hold/escalation decision; preserved adverse evidence and recipient communications.
Controlling clocks and genuine event timestamps	Actual due/completion records in SC-003 and the relevant register; no administrative reset.

2 Operating sequence

PR-002 – Normative Development, Consultation and Profile Release

Trigger: A new profile, substantive requirement, changed limit or proposed interpretation enters development.

1. Define the need and decision

The technical owner states the sector problem, evaluated object, intended users, expected benefit, failure consequences and evidence gaps. Compare the proposed scope with the existing family and module catalogue. Use an existing route where it genuinely fits; do not create an extra family merely to publish more detail.

2. Build evaluable criteria

For each requirement, specify the object/configuration, actual numerical limit or defined attribute, units, technical basis, method, representative population, uncertainty or rubric, essential failures and responsible decision function. Leave an essential unknown as an open development action, not a phrase such as appropriate aerospace quality.

3. Classify and review the proposal

Identify normative additions, informative guidance and editorial changes separately. Review technical validity, independence, measurement capability, access, safety, burden and foreseeable misuse. A proposed interpretation that changes a threshold, authorisation or outcome class must be handled as a substantive version.

4. Conduct accessible consultation

Issue the actual proposed normative text for at least 60 calendar days. Record the notice, access route, start/end dates and participating views. Preserve each material comment and a reasoned disposition. An internal meeting, generated comment set or file-preparation date does not establish public consultation.

5. Freeze the ballot basis

After disposition, identify the final text, eligible voting roll, conflicts and substantive yes/no responses. At least two thirds of eligible members must participate substantively, and at least two thirds of those substantive votes must be affirmative, both rounded upward. Record dissent; material new obligations require appropriate further review.

6. Challenge the method and workflow

Plan representative normal and adverse pilots, including missing criteria, inaccessible evidence, open findings, conflicts, invalid measurement, expired authority, status changes and recovery failures. Distinguish safe synthetic tests from real technical witnessing. Record failed tests and independently verified correction.

7. Obtain separate authorities

Technical approval, institutional publication/adoption and exact profile activation are separate recorded events. Confirm the legal operator, competent available people, decision/appeal arrangements, executed terms, operating documents, registry and continuity. Publish only independently complete profiles, with unavailable supplements clearly identified.

8. Maintain a prospective transition

Identify affected publications, holders, configurations, tools and competence. State the actual effective version and any additional assessment required. Preserve historical decision bases. Review suitability at the controlling interval and after significant evidence without using an informal interpretation to bypass the version process.

Hold / escalation: Insufficient consultation, invalid ballot, unresolved essential technical dissent, incomplete criteria or absent activation prerequisites results in a recorded development hold; the programme does not advertise a live route.

Record handover: AF-AST-FR-001, AF-AST-FR-004, AF-AST-FR-027, AF-AST-FR-028.

3 Completion, holds and handover

Insufficient consultation, invalid ballot, unresolved essential technical dissent, incomplete criteria or absent activation prerequisites results in a recorded development hold; the programme does not advertise a live route.

Decision and authority boundary

A positive grant, renewal or extension requires valid scope, every applicable criterion fulfilled, sufficient usable evidence, closure of every in-scope nonconformity, current competent independent decision authority and effective required permissions. No score, majority vote, membership status or future corrective promise replaces a missing gate. An operational technical release, a programme outcome and an administrative publication are separate actions.

Required record	Capture responsibility
AF-AST-FR-001	Programme adoption and scope activation
AF-AST-FR-004	Technical-profile and criterion schedule
AF-AST-FR-027	Internal audit, management and independent operator review
AF-AST-FR-028	Programme change, transition and closure

The performer hands the actual record to the designated owner or reviewer. The receiving function verifies scope, version, usable evidence, open conditions, original dates and the action it may take. Sending an email, completing a form or setting a database flag is not acceptance of that handover.

4 Timing and escalation

Control / source	Trigger and interval	Required response
Corrective-action plan Core 14.4	Original finding notification 30 calendar days	Immediate protection is separate. Do not reset the original clock.
Major finding closure Core 14.4	Original finding notification 60 calendar days	Verify implementation and effectiveness; review continued conformity immediately.
Minor finding closure Core 14.4	Original finding notification 90 calendar days	All in-scope nonconformities closed before grant, renewal or extension.
Critical protection Core 14.2	Recognition of credible concern Immediately	Stop or contain affected work; preserve evidence.
Holder critical notice Core 14.2	Awareness Within 24 hours	Earlier applicable duties remain in force.
Operator critical status action Core 14.2	Substantiated critical concern Within 24 hours	Suspend or independently justified effective restriction.
Rule/profile suitability review Core 4.6	Issue / last suitability review No more than 3 years	Earlier after material evidence; version is distinct from an interpretation.
Substantive public consultation Core 4.3	Published proposed normative text At least 60 calendar days	Actual comments, dispositions and valid technical approval required.

Use actual awareness, notification, completion, decision, issue and expiry timestamps with a declared time zone. Days are calendar days unless explicitly stated otherwise. Month intervals end on the corresponding date, or month-end where that date does not exist. Earlier applicable duties prevail. Source: Annex H.

5 Worked application and failure response

Synthetic example: In a synthetic nine-member committee, six substantive votes with four affirmative meet the arithmetic minima. The publication still cannot activate a profile when essential test parameters or independent evaluators are missing.

Before closure, challenge a missing essential input, an expired or conflicted role, wrong configuration, contradictory evidence and an incomplete receiving handover where applicable. Record expected and actual behaviour. A completed synthetic exercise tests reasoning or workflow only; it cannot replace required technical witnessing.

E1 Explicit acceptance and evidence contract

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.

E2 Source-to-implementation 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
4.1 / 13	Development request and feasibility	Requirement, objective evidence and local child predicates
4.2 / 14	Profile content and acceptance criteria	Requirement, objective evidence and local child predicates
4.3 / 14	Consultation and technical approval	Requirement, objective evidence and local child predicates
4.4 / 14	Pilot evaluation and method challenge	Requirement, objective evidence and local child predicates

ASTRA ID / page	Source subject	Implementation use
4.5 / 14	Activation gate and scope release	Requirement, objective evidence and local child predicates
4.6 / 14	Interpretation and controlled evolution	Requirement, objective evidence and local child predicates
59.1 / 83	Need, benefit and foreseeable consequences	Requirement, objective evidence and local child predicates
59.3 / 84	Emerging domains and evidence gaps	Requirement, objective evidence and local child predicates
59.5 / 84	Learning, consultation and controlled adoption	Requirement, objective evidence and local child predicates
61.2 / 86	Retained text and authored additions	Explicit verification and acceptance predicate
61.4 / 86	Actual approval and activation	Explicit verification and acceptance predicate
62.1 / 88	Atomic requirement record	Explicit verification and acceptance predicate
62.2 / 88	Mandatory parameter completion	Explicit verification and acceptance predicate
63.5 / 91	Unknown and future environments	Explicit verification and acceptance predicate
80.1 / 124	One complete application schedule	Explicit verification and acceptance predicate
80.6 / 125	Completion boundary	Explicit verification and acceptance predicate

E3 Detailed operating extensions

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Implementation basis: 4.1 (p. 13); 4.2 (p. 14); 4.3 (p. 14); 4.4 (p. 14); 4.5 (p. 14); 59.3 (p. 84); 62.1 (p. 88); 62.2 (p. 88); 63.5 (p. 91); 80.1 (p. 124); 80.6 (p. 125)

X02.1 Convert need into a bounded development brief

Record the intended beneficiaries, affected object, existing family/module, mission domains, actual duty and evidence gaps. Distinguish a new method from a new programme family.

Completion / hold: HOLD remains until the activity and retained duties can be stated without an unrestricted sector label.

X02.2 Write testable proposed requirements

Assign stable child IDs to independent conditions, define predicates and populate every triggered technical parameter. Identify unresolved scientific assumptions rather than treating them as values.

Completion / hold: No live profile release while an essential criterion, method, authority or parameter is undefined.

X02.3 Test the proposal before approval

Use normal and adverse technical cases, secure mock records and independent first responses. Record unclear wording, discriminatory behaviour, practical burden and invalid inferences.

Completion / hold: Synthetic workflow success alone does not establish field method capability.

X02.4 Complete genuine consultation and activation

Preserve notice, comment population, original responses, reasoned dispositions, eligible voters and substantive votes. The actual technical and institutional approvals precede scope activation.

Completion / hold: Apply the existing consultation and voting gates and then independently prove operator, people, systems and exact-profile readiness.

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.

E4 Application-specific parameter completion

These are required information groups from Annex AO, not pre-approved engineering limits. For every triggered group, populate actual values or observable attributes before evaluation, with unit, inclusivity, phase/mode, technical derivation, uncertainty/dependence, method version, owner, independent review, authentic approval and change trigger. An absent trigger requires an approved exclusion; an unsupported or missing essential value is HOLD.

P01 – Mission and scope

Legal owner, performer, family/module, object, domain, configuration, location, duration and modes.

Derivation and evidence: Scope tuple and mission concept; approved applicability matrix.

Completion test: No undefined essential object, duty, phase or exclusion.

P02 – Environment and exposure

Quantity, spatial/temporal boundary, distribution or bound, source/model, uncertainty and coupled effects.

Derivation and evidence: Mission environment baseline and qualified specialist rationale.

Completion test: Selected conditions bound each claimed use; unknown critical mechanisms remain HOLD.

P03 – Requirements and acceptance

Stable ID, owner, characteristic, units, bound inclusivity, predicate, observation and essential-step marker.

Derivation and evidence: Requirement baseline and Annex AL decision rule.

Completion test: Every condition is evaluable before observations are judged.

P14 – Software, AI and models

Purpose/domain, source/build/weights/data, dependencies, target, errors, uncertainty, prohibited behaviour and change limits.

Derivation and evidence: Independent verification and model/use validation.

Completion test: Essential scenarios and target conditions pass; experimental outputs remain separate.

P18 – Decision, continuity and terminal duties

Closed findings, reviewer competence, independence, authority, status clocks, final-state criteria, custody and open obligations.

Derivation and evidence: Authenticated decisions and verified terminal/transfer evidence.

Completion test: Every mandatory gate is complete; incomplete or unknown terminal state remains explicit.

E5 All-space applicability and bounded responsibility

The following Annex AK tags are selected because the document can support these responsibilities. Applicability is decided for the actual case. Tags do not expand a family, create an operating permission or place a whole mission inside a supplier's limited scope. Resolve domain, phase, mode, environment and retained duty before accepting a claim.

Domain / source page	Coverage	Required boundary
AK01 / 187 Terrestrial engineering and supply	Design offices, manufacturing, material sources, procurement and integration.	Every delivered characteristic and essential supplier interface is traceable to accepted evidence.
AK02 / 187 Test facilities and technical providers	Environmental, structural, materials, calibration and inspection services, including mobile and remote work.	Actual method competence and valid result evidence are separately demonstrated.
AK03 / 187 Launch sites and spaceports	Site infrastructure, handling, ground services, emergency interfaces and actual permissions.	No site outcome is used as vehicle, launch or mission permission.
AK30 / 194 Ground, communication and navigation services	Mission control, RF/optical links, timing, data processing, relays and PNT support.	Availability, correctness, authority and completion are separately demonstrated.
AK31 / 194 Digital and autonomous space systems	Software, programmable hardware, AI, models, twins and defensive security.	All essential behaviours and prohibited transitions are verified for the actual deployment.
AK32 / 194 Retirement and long-term stewardship	Disposal, passivation governance, loss-of-contact states, records and residual obligations.	Final-state claims are truthful and every unresolved duty has an accepted owner.

E6 Workflow and evidence relationships

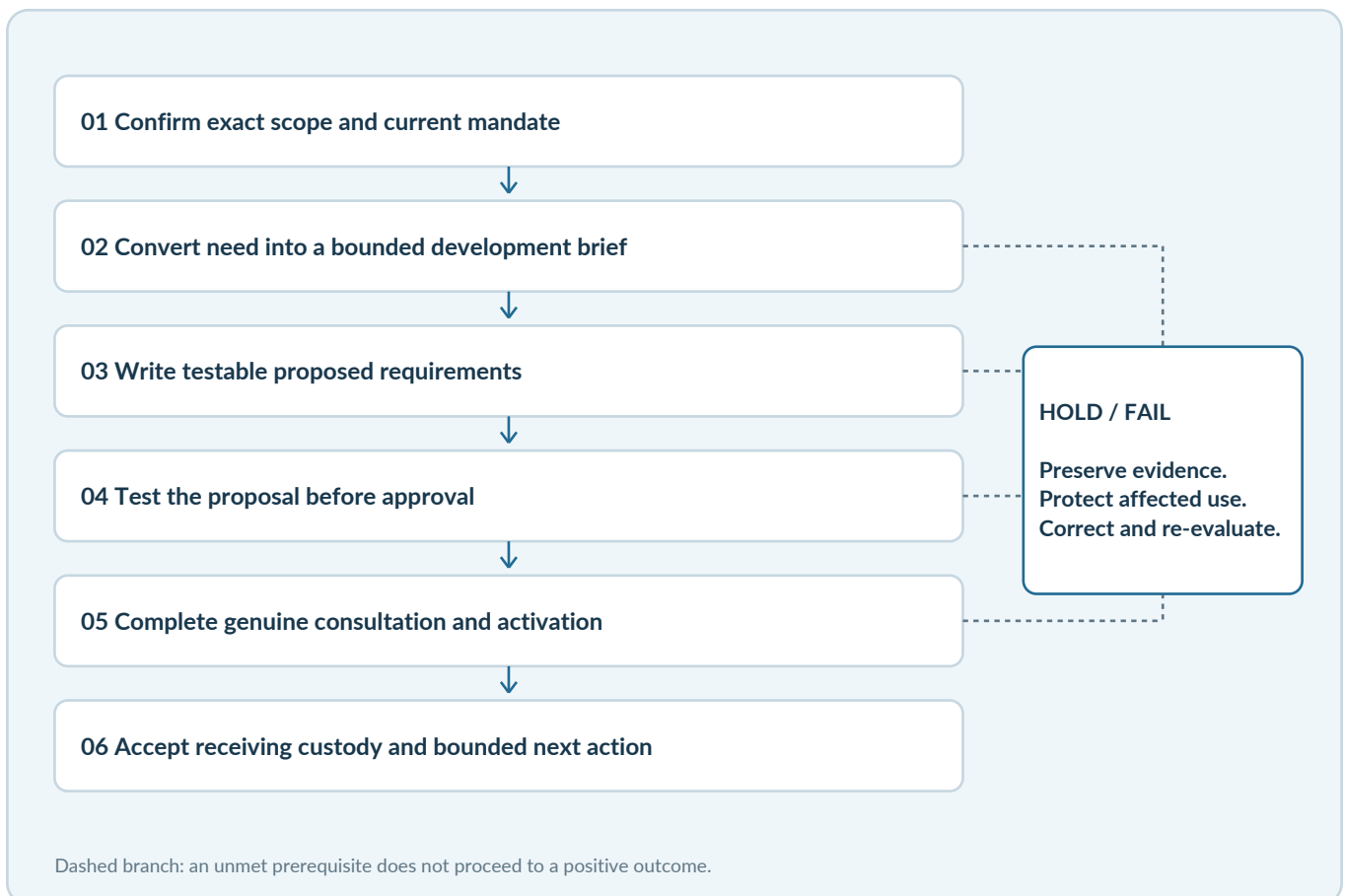
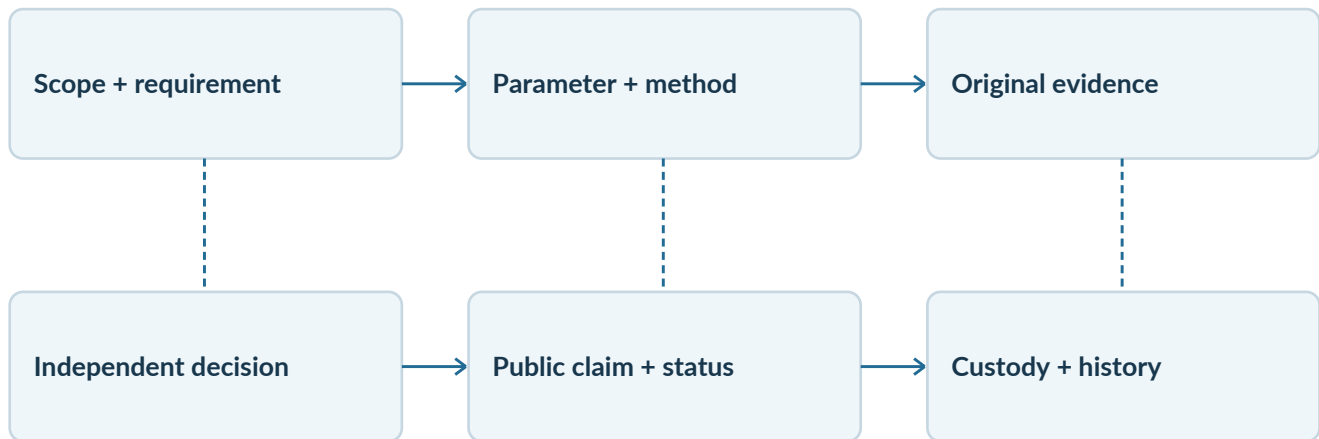


Figure – Implementation sequence for AF-AST-PR-002. Explanatory diagram; the source prerequisites and actual authority remain controlling.



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.

E7 Calculations, assumptions and synthetic charts

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.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

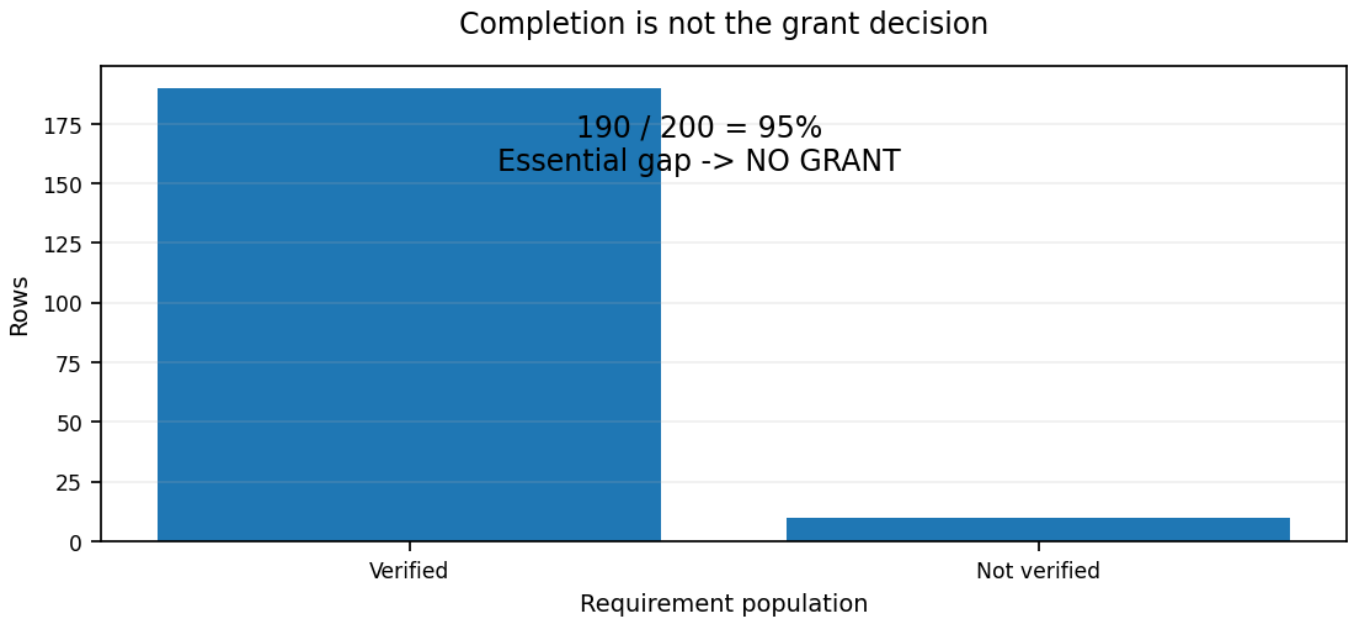


Figure Q03 — Synthetic visualisation. The axes and stated scenario define the quantity; no graph is an accreditation score, approved operating envelope or evidence of a real mission.

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

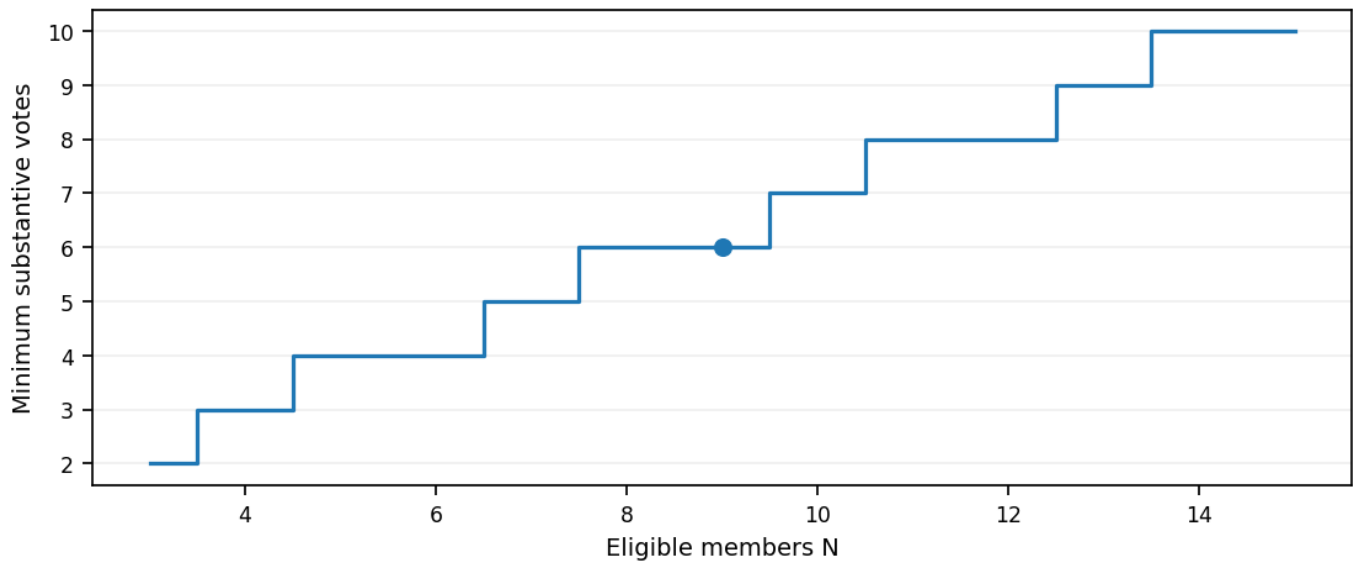


Figure Q04 – Synthetic visualisation. The axes and stated scenario define the quantity; no graph is an accreditation score, approved operating envelope or evidence of a real mission.

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.

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

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

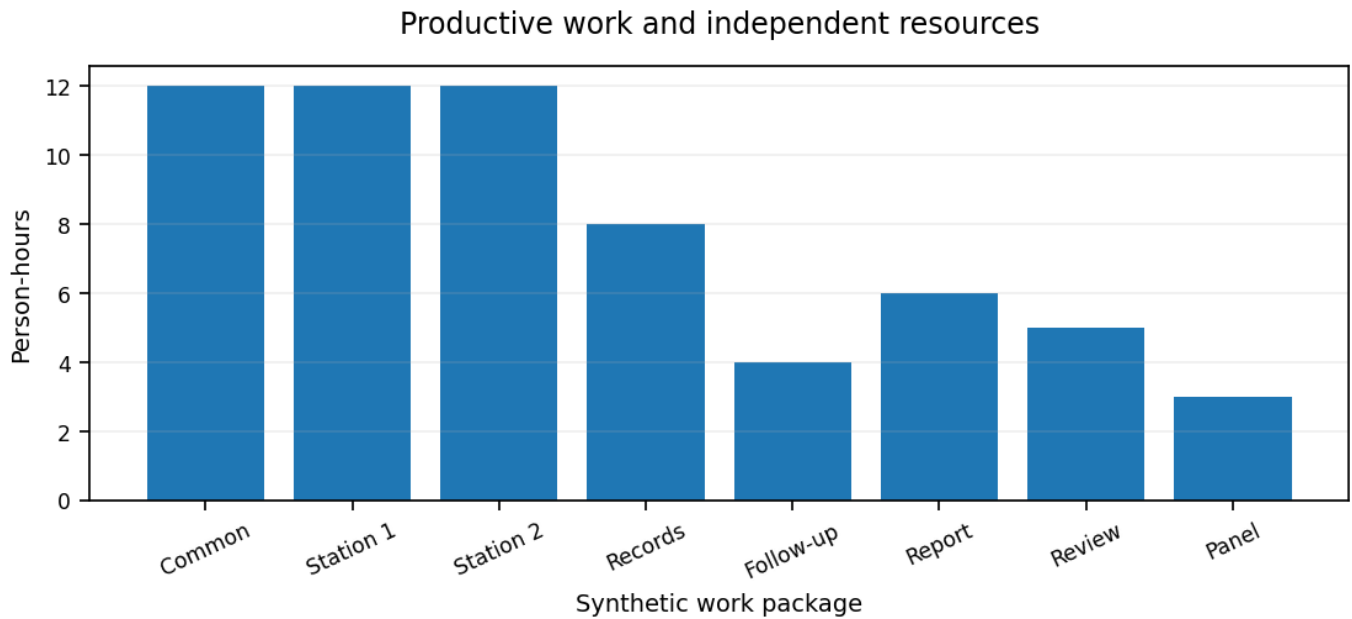


Figure Q05 — Synthetic visualisation. The axes and stated scenario define the quantity; no graph is an accreditation score, approved operating envelope or evidence of a real mission.

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.

E8 Adverse cases and independent replay

Challenge	Expected handling	Evidence retained
PR-002: Convert need into a bounded development brief — required basis missing	HOLD remains until the activity and retained duties can be stated without an unrestricted sector label.	Original input, unresolved value, affected requirement and scope; named action owner.
PR-002: Complete genuine consultation and activation — handover or review incomplete	Apply the existing consultation and voting gates and then independently prove operator, people, systems and exact-profile readiness.	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.

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.

4.1 – Development request and feasibility

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

A new profile shall start from a defined sector need, intended beneficiaries, output type, failure consequences and available evidence. The technical owner shall assess whether a new profile is necessary or an existing one can cover the activity without scope distortion. The development record shall consider feasibility, access, resources, conflicts, proportionate burden and the capability required of evaluators. A catalogue entry or market demand alone is not approval of a method or authority to solicit formal applications.

Required evidence: Development brief; duplicate-scope review; feasibility and resource decision.

4.2 – Profile content and acceptance criteria

Source: AF-AST-STD-001, page 14.

Every released profile shall contain the fields in Annex C: exact scope, prerequisites, measurable or defined attribute criteria, methods, sampling, uncertainty, essential controls, competence, sites, witnessing, decision rules, duration, surveillance, records and permissible claims. Criterion limits shall be derived from the actual technical and obligation basis. They shall be fixed before results are evaluated. There shall be no universal tolerance, environmental test load, staff ratio, curriculum credit total or carbon threshold invented to cover unrelated applications.

Required evidence: Complete approved profile; criterion-to-method map; acceptance rationale.

4.3 – Consultation and technical approval

Source: AF-AST-STD-001, page 14.

Substantive requirements shall receive at least 60 calendar days of public consultation before final technical approval through the applicable AF process. Material comments and dissent shall receive recorded dispositions. Final normative committee approval requires substantive yes-or-no participation by at least two thirds of eligible voting members and affirmative votes from at least two thirds of those substantive votes, rounded upward. Material new requirements introduced after consultation shall undergo further review or consultation proportionate to their effect. Actual records shall be retained; preparation does not retrospectively establish consultation.

Required evidence: Notice; comments and dispositions; eligible roll; substantive vote and approval records.

4.4 – Pilot evaluation and method challenge

Source: AF-AST-STD-001, page 14.

Before release, the operator shall exercise representative normal and adverse cases, including an undefined scope, inaccessible evidence, a failed critical requirement, a conflict, a rejected result, a status change, an appeal and a recovery failure. Technical pilots shall examine criterion clarity, discrimination, burden, evaluator agreement and evidence sufficiency. Participants shall be told the restricted pilot purpose. Synthetic cases shall be labelled. A pilot participation letter shall not be a live accreditation, certification or recognition result.

Required evidence: Pilot plan; authentic or clearly synthetic cases; findings; verified correction and limitations.

4.5 – Activation gate and scope release

Source: AF-AST-STD-001, page 14.

A scope becomes available only after the independent technical readiness check and authorised institutional activation described in Annex P. Confirm lawful operator identity, complete profile, competent teams and decision authority, executed terms, working evidence and registry systems, remedies, resources and continuity. Release shall identify exact available scopes and unavailable supplements. A partially ready portfolio may open only the independently complete profiles; unrelated incomplete development projects need not block that release. No profile shall borrow an unverified capability from a future programme.

Required evidence: Scope-release checklist; readiness evidence; authorised effective date; published boundaries.

4.6 – Interpretation and controlled evolution

Source: AF-AST-STD-001, page 14.

A controlled interpretation may explain an existing condition but shall not change a threshold, expand a claim, waive competence or convert missing evidence into a pass. Such changes require formal normative version and prospectively defined transition. Review active rules at least every three years and sooner after serious incidents, method failures or material technological change. Retain earlier criteria and decisions. An urgent factual safety communication may protect users but shall not be disguised as an unconsulted new accreditation requirement.

Required evidence: Interpretation register; change classification; transition assessment; version archive.

59.1 – Need, benefit and foreseeable consequences

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

A development proposal shall state the problem, intended beneficiaries, expected benefit, foreseeable harm, affected people, technical owner and evidence gaps. It shall identify the existing family and object route or justify a separately governed architectural change. The review shall consider technical feasibility, safety, privacy, misuse, access and resources. A projected market or ambitious technology label shall not establish that the proposed method can produce a valid independent conclusion.

Required evidence: Development brief; family/object mapping; benefit and harm review; feasibility and evidence-gap assessment.

59.3 – Emerging domains and evidence gaps

Source: AF-AST-STD-001, page 84.

Candidate topics may include new propulsion and energy architectures, advanced materials, adaptive manufacturing, autonomous services, distributed space systems, remote habitation and evolving digital trust mechanisms. These are development directions, not forecasts of maturity or promised programme releases. The technical owner shall determine their specific hazards, dependencies, measurement needs, assessor competence and acceptance criteria. No universal test recipe or claim of future readiness shall replace a completed technical profile.

Required evidence: Topic-specific profile development; hazard and evidence analysis; competence feasibility; prospective acceptance basis.

59.5 – Learning, consultation and controlled adoption

Source: AF-AST-STD-001, page 84.

Pilot results shall be assessed for criterion clarity, technical discrimination, burden, repeatability of judgement and adverse outcomes. Material new requirements shall follow the consultation and approval process in Clause 4.3. Adoption shall state which profiles, people, tools and holders are affected and preserve previous decision bases. Horizon scanning shall inform a maintained development portfolio, but shall not be used to impose unconsulted requirements or advertise unavailable accreditation routes.

Required evidence: Pilot findings; reasoned versions ; consultation and ballot records; transition plan; truthful availability catalogue.

61.2 – Retained text and authored additions

Source: AF-AST-STD-001, page 86.

Clauses 0–60 and Annexes A–AH retain the source architecture, subject identifiers and operational controls, subject to the editorial identity changes stated in Annex AI. This clause, Clauses 62–80 and Annexes AK–AR develop explicit all-space coverage, decision logic, calculations and evidence controls. They shall not be represented as records of completed field evaluation or as proof that the complete consolidated text existed on the displayed edition date.

Verification: Review the internal authorship boundary in Annex AJ and the actual approval dossier.

Acceptance / hold rule: Source-derived requirements and newly authored material are distinguishable; no invented approval, validation or prior effectivity is asserted.

61.4 – Actual approval and activation

Source: AF-AST-STD-001, page 86.

The adoption dossier shall retain the proposed text, consultation, comment dispositions, valid technical decision, institutional authority, operator identity and exact scope activation. Real signatories and event timestamps shall be recorded when the events occur. A blank, generated or copied signature shall not be used as an approval. Technical and institutional release shall remain separate from the acceptance of a particular applicant.

Verification: Trace the authorisation chain and independently verify each necessary approval.

Acceptance / hold rule: All triggered gates in Clause 4 and Annex P are satisfied before live scope use; otherwise the affected scope remains unavailable.

62.1 – Atomic requirement record

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

Each assessed requirement shall have a stable identifier, one accountable owner, an applicability trigger, defined object and configuration, required behaviour or characteristic, observable conditions, verification method and acceptance predicate. Compound statements shall be separated into individually testable rows without deleting any condition. Terms such as adequate, suitable, promptly or representative shall be resolved through the explicit records in this clause before they support an acceptance decision.

Verification: Inspect each requirement row and its linked method, boundary and predicate.

Acceptance / hold rule: Every applicable row is evaluable without inventing an object, limit, observation or decision role. Unresolved essential terms result in HOLD.

62.2 – Mandatory parameter completion

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

An application-dependent value shall be entered in a controlled parameter schedule before the relevant test or evaluation. Each entry shall state symbol, meaning, unit, inclusive or exclusive bounds, uncertainty treatment, operating modes, technical derivation, source evidence, approver and change trigger. A declared value is not adequate merely because the applicant selected it. The independent reviewer shall challenge whether it bounds the claimed environment and consequence.

Verification: Recalculate derivations and check mission, interface and obligation coverage.

Acceptance / hold rule: The complete parameter set is approved prospectively. A blank, TBD, unsupported factor or undefined threshold blocks the dependent release.

63.5 – Unknown and future environments

Source: AF-AST-STD-001, page 91.

For a novel environment or technology, the technical owner shall document known conditions, uncertain mechanisms, missing measurements, model limitations and the evidence needed to resolve them. Restricted research may continue only inside its approved protective boundary. An operational or conformity claim shall not be issued until the essential criteria and evidence are complete. Existing equations shall not be extrapolated beyond their validity without a tested justification.

Verification: Examine novelty analysis, experiment authority and unresolved-condition register.

Acceptance / hold rule: Unknown essential behaviour is not recorded as safe or conforming. Development status and permitted work are explicit.

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.

80.6 – Completion boundary

Source: AF-AST-STD-001, page 125.

The final document is a requirement and evidence framework. Each actual mission and technical profile shall complete its numerical limits, specialist procedures, permissions and validation. Newly authored provisions shall follow the real adoption process before binding live use. No statement in this publication guarantees that every undiscovered physical phenomenon or future technology has already been validated.

Verification: Review the final release dossier and the truthful distinction between prepared text and real implementation.

Acceptance / hold rule: Only the exact demonstrated and authorised scope is released; incomplete domains remain available for controlled development, not presumed conformity.

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.

PDF recording limits: text fields may scroll beyond their visible area. A printed or flattened copy shall include controlled continuations whenever the full response is not visible. A typed name is not a certificate-based authenticated signature. An actual signed instrument or authenticated workflow shall establish approval. Record custody and privacy are implemented by the receiving organisation, not by this PDF alone.