ELECTRONIC SIGNATURES

Signature tracking and signing history, built in.

Every sign-off in Avistrata is made by a named person on their own login and stored with the record, role, date and time. Signed records lock, and every later change keeps its approver and reason. That lines up with the FAA's standard for electronic signatures and records, AC 120-78B.

- Who, when and in what role
- Signed records lock
- Tamper-evident flight sign-offs
- Full audit trail
- Export for inspectors

THE FAA STANDARD

What the FAA expects of an electronic signature

The signature itself is required by the regulations. **43.9** and **43.11** require the signature, certificate number and kind of certificate of the person approving return to service, and **91.417**, **135.439** and **145.219** set how long those records are kept. **AC 120-78B** (December 11, 2024) describes an acceptable way to do this electronically. It is guidance, not a rule.

The signature (AC Chapter 2)

- Unique to the signer and hard to copy
- Linked to an identified, authenticated signer
- Clear intent, shown after the signer reviews the record
- Tied to the record, so it can't be denied
- A signed record can't change; corrections need a new signature

The system (AC Chapter 3)

- Controlled access
- Records kept unaltered without authentication
- Backup, so records are never lost
- Records produced for the FAA or NTSB on request
- Users trained on the system

Parts 91K, 121, 125, 133, 135 and 145 have electronic signature and recordkeeping systems accepted through OpSpec A025. Part 91 operators and Part 43 mechanics need no authorization, though the FAA recommends following the AC.

SIGNATURES

How Avistrata records a signature

- **Who.** Each user signs in with their own account, with multi-factor authentication or single sign-on (SAML) and password rules set per group.
- **How.** Drawn, PIN or biometric signatures, confirmed at the moment of signing, with location recorded when the device allows.

- **In what role.** One to five signature levels per record, each tied to a role: mechanic, inspector, RII and approval for return to service. An RII is signed by an inspector who is not the mechanic.
- **When.** Date and time are stored with every signature.
- **On what.** Task cards, work orders, MEL deferrals, discrepancies and return to service; in Flight Ops, releases, FRAT approvals, load manifests and crew fitness for duty.
- **Intent.** Flight sign-offs show a signing statement and store it exactly as shown.
- **Logbook wording.** Finished work prints as a logbook entry with 43.9 or 43.11 wording.
- **Gates.** A task card can't be signed off while a tool is still checked out, and a flight can't be released while a grounding item or overdue inspection is open.

HISTORY

Signing history and audit trail

- **Signed records lock.** Changing a signed entry needs an approver and a reason, and both are kept on the record.
- **Tamper evidence.** Release, FRAT and weight and balance sign-offs are stored with a SHA-256 hash of the signed content in an append-only log.
- **Change history.** Work records and aircraft-on-ground events keep a timeline of every change.
- **Admin audit log.** Role changes, invitations, group and billing changes, imports, overrides and flight-ops settings are logged.
- **Login history.** Each user's sign-ins are kept, so you can show who had access and when.
- **For the inspector.** Export records to CSV or PDF at any time, and give auditors free view-only seats.

CHECKLIST

AC 120-78B, point by point

AC 120-78B point	Paragraph	How *Avistrata meets it*
Unique to the signer	2.2.1	Own login per user; drawn, PIN or biometric signature
Signer identified and authenticated	2.1.2.2, 2.2.6.1	MFA or SAML single sign-on; PIN or biometric confirmation at signing
Intent to sign shown first	2.2.2	Signing statement stored on flight sign-offs; role named on maintenance sign-offs
Signer reviews the record first	2.2.4.1	Signature applied on the open record
Signature tied to the record	2.2.5	Stored with the record, role, date and time; SHA-256 hash on flight sign-offs
Signed record can't be changed	2.2.7	Signed records lock; edits need an approver and a reason
Correction supersedes the old signature	2.2.8	Approved change and reason kept on the record
Controlled access, records preserved, backup	3.2.1–3.2.7	Row-level security per group, roles, audit log, hosted database
Records produced for the FAA or NTSB	3.2.8.6	CSV or PDF export; free auditor seats

GETTING READY

What to do on your side

- Describe your signature and recordkeeping policy in your manual: who signs what, roles, and how corrections are made (AC 2.2.11, 3.2.8). We can help you draft it.
- If you hold a Part 91K, 121, 125, 135 or 145 certificate, talk to your Flight Standards office about OpSpec A025 for your electronic system.
- Train your team on signing and corrections, and keep the training records (AC 3.2.9).

See signing and history on your own aircraft

A 20-minute walkthrough, or start a free 14-day trial.

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Sources: FAA AC 120-78B, Electronic Signatures, Electronic Recordkeeping, and Electronic Manuals (December 11, 2024). This brief is a summary for planning, not legal advice. Check the current regulations, your operations specifications and your manuals.