

1. Owner Duties (All Aircraft)

- **§ 91.403(a):** You are responsible for airworthiness and AD compliance.
- **§ 91.405(a):** Ensure maintenance entries are made and signed.
- **§ 91.417:** Maintain required maintenance and permanent records.
- **§ 43.9 / § 43.11:** Entries must show description, date, signature, and certificate number (when Part 43 applies).

2. Required Logbooks

- **Airframe** – All inspections, ADs, and modifications.
- **Engine** – Oil changes, compressions, overhauls, ADs.
- **Propeller** – Service and overhaul history (if constant-speed).
- **Avionics** – 91.411 / 413 tests, software updates (optional).
- **Builder's Log (E-AB)** – Construction record, not maintenance.
- **Flight-Test Log (E-AB)** – Required during Phase I.

3. Record Retention (§ 91.417(b))

- Maintenance / Alterations – Keep 1 year or until superseded.
- Permanent Records – Keep for life and transfer at sale (Total times, AD status, inspections, 337s).

4. Inspections

- **Certified:** Annual by IA (§ 91.409(a)).
- **Experimental:** Condition Inspection each 12 months (§ 91.409(e)). Required log entry wording: "I certify this aircraft was inspected on [date] in accordance with Appendix D to Part 43 and was found to be in a condition for safe operation." Signed by Repairman (for that aircraft) or A&P.
- **91.411 / 91.413:** Altimeter and transponder tests every 24 months.

- **91.207(c)(1):** Log ELT battery replacement and next due date.

5. Major Changes (E-AB OpLims Para 13)

If a modification affects weight, balance, structure, performance, or handling:

1. Enter Phase I for at least 5 hours of flight test.
2. Log change and results.
3. Certify aircraft again "in a condition for safe operation."

6. AD & SB Tracking

- **§ 39.3:** ADs apply only to type-certificated components.
- Track engine, prop, and appliance ADs per § 91.417(a)(2)(v).
- Keep a separate AD / SB spreadsheet with date, TTAF, method of compliance.

7. Example Log Entry

Replaced left brake caliper O-ring IAW Sling TSi Maintenance Manual Ch 32-40-00. Operational check good. Returned to service. J. Doe A&P 3456789.

8. Best Practices

- Keep logs chronological and legible.
- Back up digital scans off-site.
- Maintain a front summary sheet (TT, SMOH, tests, ADs).
- Store originals safely—carry copies when traveling.
- Label each book (Airframe #1, Engine #2, etc.).
- File supporting docs (W&B, oil analysis, 337s, invoices).

9. Common Pitfalls

- Missing signatures or certificate numbers.
- Using pencil or erasable ink (FAA requires permanent entries).
- Gaps in chronological order or missing pages.
- Storing original logbooks in a hangar (risk of water or theft).
- Recording only work done by others—forgetting owner maintenance.
- No record of Phase I flight testing (E-AB).

10. Preserving Resale Value

- Keep every log complete and legible; missing logs reduce value 10–40%.
- Include summary sheet and AD/SB status at the front of each book.
- Keep scanned digital archive with PDF copies.
- Note all equipment/software versions after upgrades.
- Keep builder's log, airworthiness certificate, and OpLims together.
- A clean log entry with full data tells buyers the aircraft was cared for.

11. Core References

- **14 CFR Part 43** – Maintenance and Records
- **14 CFR Part 91 Subpart E** – Maintenance Rules
- **§ 21.93** – Major Changes
- **§ 39.3** – AD Applicability
- **FAA Order 8130.2K** – Experimental Airworthiness & Operating Limitations
- **AC 43-9C** – Maintenance Record Guidance

Bottom Line

- If it isn't written, it didn't happen.
- Your logbooks are your aircraft's second set of wings.