



QUEST AERONAUTICS
Advanced Solutions for General Aviation

CHECKLIST

PRE-PURCHASE AIRCRAFT CHECKLIST



Before You Start:

Define Your Mission (Mini-Matrix)

A HIGH-LEVEL VERSION OF YOUR MISSION DEFINITION FRAMEWORK.

Before looking at any aircraft, get clear on what you need it to do. The right aircraft is the one that fits your life — not the one with the best pictures.

Tick the boxes that apply.

Typical Trip Distance

- ☐ 100–300 nm
- ☐ 300–700 nm
- ☐ 700+ nm

Passengers

- ☐ Mostly solo
- ☐ 1–2
- ☐ 3–4
- ☐ 5–6

Conditions

- ☐ VFR
- ☐ IFR
- ☐ Night
- ☐ All-weather capability

Runways

- ☐ Paved
- ☐ Grass
- ☐ Short / rough
- ☐ Mountainous environments

Priorities

- ☐ Speed
- ☐ Comfort
- ☐ Economy
- ☐ Payload
- ☐ Avionics
- ☐ Simplicity / Low workload

**YOUR MISSION DETERMINES YOUR AIRCRAFT.
IT PREVENTS 80% OF COMMON OWNERSHIP MISTAKES.**



Documentation & Logbook Essentials

The logbooks tell the real story of the aircraft. Always review them carefully.

- ❑ Full, continuous logbooks (no gaps)
- ❑ Clear maintenance history
- ❑ All Airworthiness Directives (ADs) documented and up to date
- ❑ Time Since New (TSN) and Time Since Overhaul (TSO) known
- ❑ Evidence of regular operation (not 20 hours/year)
- ❑ No suspicious “fresh overhaul” with unknown shop
- ❑ Damage history disclosed & properly repaired
- ❑ STCs or modifications documented
- ❑ Avionics history & age known
- ❑ Recent major maintenance (engine, prop, avionics, corrosion treatment)

A “FRESH OVERHAUL” CAN ACTUALLY BE A RED FLAG. YOU LOSE CONTROL OVER SHOP CHOICE, PARTS, AND QUALITY.



Red Flags to Look For

Exterior & Structural Condition

- ☐ Corrosion (skin, control surfaces, battery box, firewall)
- ☐ Paint bubbling or cracking
- ☐ Loose or stiff hinges
- ☐ Unusual repairs or patchwork
- ☐ Signs of hangar rash or undocumented damage

Engine & Propeller (high-level)

- ☐ Very low annual utilisation (10–20 hrs/year)
- ☐ Excessively rich operation indicators
- ☐ Hard starting or rough running
- ☐ Oil leaks, excessive oil consumption
- ☐ Old or uncertified overhauls
- ☐ Prop strikes or sudden stoppage history (serious!)

Avionics & Electrical

- ☐ Old avionics requiring costly upgrades
- ☐ Partial ADS-B compliance
- ☐ Outdated GPS/WASS capability
- ☐ Weak display backlights or intermittent failures

A “CHEAP AIRCRAFT” IS RARELY CHEAP. LOW PURCHASE PRICE OFTEN HIDES EXPENSIVE FUTURE WORK.



Cost Factors to Understand Early

- Hangar vs outdoor parking availability & cost
- Insurance availability and estimated premium (based on experience)
- Fuel type availability (AVGAS vs MOGAS)
- Expected hourly operating cost (fuel + maintenance)
- Budget for upgrades (avionics, safety equipment, interiors)
- Potential need for preheater, engine monitor, or safety upgrades
- Known expensive items coming due (prop overhaul, paint, interior)

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Questions That Reveal the Truth

Ask the owner/seller:

"Why are you selling the aircraft?"

"What unexpected issues did you have in the past 12 months?"

"Who maintained the aircraft and how long?"

"Any recurring snags?"

"Any advisories or deferred maintenance items?"

*IF THE ANSWERS FEEL VAGUE OR RUSHED, TREAT IT AS A **WARNING SIGN**.*

Buying an aircraft is one of the biggest decisions in your aviation journey. If you want help evaluating your shortlist or assessing real maintenance risks, you can schedule a **Professional Diagnostic Session anytime.**



QUEST AERONAUTICS
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Independent Support for Aircraft Owners

We believe aircraft ownership should feel structured, understandable, and controllable.

Quest Aeronautics helps pilot-owners make more confident ownership and maintenance decisions through independent consulting, operational thinking, maintenance strategy, and data-driven decision frameworks.

Our goal is to help owners move from reactive aircraft ownership to confident, structured operation.

Every two weeks, we host **professional workshops** for pilot-owners covering topics such as:

- aircraft ownership strategy
- maintenance oversight
- engine reliability
- operating costs
- acquisition decisions
- long-term ownership planning

For owners seeking more individualized support, we also offer **professional diagnostic sessions** focused on ownership strategy, maintenance concerns, and operational decision-making.

[EXPLORE UPCOMING WORKSHOPS](#)

[BOOK A DIAGNOSTIC SESSION](#)