

OPINION |

What airplane should I buy?

Thoughts on finding a good purchase candidate

BY MIKE BUSCH



AN EXTRAORDINARY NUMBER of GA airplanes were bought and sold in 2020. I imagine this was somehow related to the pandemic, although I'm not sure exactly how. What I do know is that my company had been averaging about 10 prebuys per month in 2019, but by the summer of 2020 we were doing 50 prebuys per month. As I write this partway into 2021, the rate has gradually dropped back to about 30 per month, which is still much higher than it used to be.

A significant number of these are first-time airplane buyers. They go online to sites like Aircraft Shopper Online, Controller, and Trade-A-Plane and are confronted with an overwhelming number of possible purchase candidates. Many come to me asking for help in how to narrow the field down to a few. Single

or twin? Retractable or fixed gear? High wing or low wing? High-time or low-time engine or airframe?

WHAT'S YOUR MISSION?

When I'm approached for advice by a prospective buyer, my first question is generally, "How do you plan to use this airplane—what's your typical mission?" Is the aircraft going to be used primarily for recreation and \$100 hamburgers, or for serious cross-country travel in serious instrument weather? How often will you be traveling more than 500 miles from home base? Will you be flying mostly solo or carrying your family? If the latter, how big is the family, what do they weigh, and how much luggage will they be bringing?

Most first-time buyers seem to start looking for more airplane than they need.

They'll find an older Mooney or Cessna 210 that seems like a lot of airplane for the money. They'll notice that many piston twins are being offered for sale at lower prices than high-performance piston singles and be tempted to buy a twin.

I always try my best to talk first-time buyers out of doing that. The purchase price of an older airplane is just a small down payment on the total cost of ownership. The maintenance cost of an older twin or high-performance retractable can quickly get out of hand. Insurance can range from expensive to unobtainable. Not to mention that first-time buyers are bound to make a lot of mistakes while they're learning the ropes of aircraft ownership, and the cost of tuition is a lot higher for a complicated airplane than it is for a simpler one.

For all those reasons, I usually try to steer first-timers toward a fixed-gear single-engine airplane, with the thought that they can upgrade to something more complex and capable after they've gained a few years of ownership experience. For recreational use, something like a Cessna Skyhawk or Piper Archer is a good choice. For serious IFR travel, a Cessna Skylane or Piper Dakota or, if budget permits, an older Cirrus SR22 can be a good choice.

When I first took the leap into aircraft ownership more than 50 year ago, my first airplane was a Skylane. I flew it for four years (including several transcontinental trips); then upgraded to a higher-performance retractable, a Bellanca Super Viking; and then years later I upgraded again to a turbocharged twin, a Cessna T310R. Looking back, I think that was a pretty reasonable ownership trajectory.



A HIGH-TIME ENGINE is one of the easier issues to deal with because engine time is almost always fully reflected in the selling price.



A HIGH-TIME airframe can be both good and bad.

To be honest, at this stage in my life I really don't need a twin. Often when I fuel it or annual it, I wish I didn't. Before long, I may have no choice but to move back to a single, because I rather doubt any underwriter will be interested in insuring me in a twin once I reach age 80. This will probably compel me to do what I know I should have done years ago.

HIGH-TIME ENGINE

Inexperienced buyers often shy away from aircraft listings that have high-time engine(s) close to (or beyond) TBO. I consider that wrongheaded because engine time is almost always fully reflected in the selling price. An aircraft with a run-out engine is almost always priced far enough below the price of a similar aircraft with a zero-time engine to account for the cost of a major engine overhaul or factory-rebuilt exchange engine.

I bought my Cessna T310R with nearly run-out engines—it had a bit more than 1,300 hours since new when I bought it, and published TBO is 1,400 hours—and I'm convinced that buying an airplane with run-out engines has a lot of advantages.

First, the new owner gets to choose whether to overhaul or exchange for a

factory rebuilt. If he opts to overhaul, he gets to choose the overhaul shop, the kind of cylinders he wants on his new engine(s), and more. That's as it should be, since it's the new owner who will live with the consequences of these decisions for years to come.

Second, the seller is probably motivated to sell (rather than shell out big bucks for a major overhaul or factory rebuilt), and so may be a bit more flexible during price negotiations. I'm always a bit suspicious when I see an aircraft listed for sale with a "fresh overhaul" or unusually low engine time. I can't help but think that the seller most likely knew he was about to get rid of the airplane when he had the engine overhauled and might have been tempted to cut corners.

Third, you might just wind up getting a pleasant surprise. After buying my T310R with engines just 100 hours shy of published TBO, I wound up flying the airplane for 600 more hours of trouble-free operation before deciding to overhaul the engines at TBO plus 500. With a reserve for overhaul of \$24 per hour per engine, that wound up being a \$24,000 windfall for me. (If I knew then what I know now, I would have gone far past TBO plus 500 and my windfall would have been much bigger.)

With an engine that's somewhere between "fresh overhaul" and "run-out" it's often impossible for the buyer to know how much time he can expect to get out of the engine(s) before overhaul. There's only so much you can tell during a prebuy.

That's why I think that one of the best ways to buy a used aircraft—all other things being equal—is to buy one with a high-time engine, plan to overhaul it or swap it for a factory engine shortly after the purchase, and make sure the cost of doing so is factored into the selling price. If the engine turns out to be healthy enough to go past TBO, it's a gift.

HIGH-TIME AIRFRAME

A high-time airframe is more difficult to analyze. Unlike engine time, airframe time cannot be "rolled back" by doing an overhaul. It is what it is.

High airframe time isn't necessarily a bad thing. The airplane has probably been flown regularly and often throughout its life, and that's good. It might well have been a "working airplane" (flight school, charter, cargo), and those tend to receive better and more regular maintenance than owner-flown "hangar queens."

An airframe with unusually low hours is often one that has experienced lengthy periods of disuse, and unless the aircraft was based in a dry climate or stored in a heated hangar, it's a likely candidate for having hidden corrosion damage.

Very high-time airframes are another matter, however. We used to think that airframes would pretty much last forever if adequately protected from corrosion. That may still turn out to be true for some airframes (like strut-braced high-wing singles), but in recent years there has been increasing concern over the useful fatigue life of cantilever-wing airframes, and costly airworthiness directives have affected some Beech, Cessna, and Piper aircraft.

You probably shouldn't pay a premium for an ultra-low-time airframe, and might even do well to be a bit suspicious of one. A mid-time airframe—with hours commensurate to its chronological age, indicating that it has been flown regularly and often—is probably your best bet.



OLDER AIRCRAFT can often turn into expensive projects. Proceed with caution.

Unless you're an A&P with lots of free time and looking for a project airplane, my advice is to buy the latest model year you can reasonably afford.



LOOK PAST THE COSMETICS; paint and interior are wear items.

OLDER AIRCRAFT

Figuring out what model year to buy is another tough one. Market valuation of airplanes tends to drop precipitously with calendar age, and you occasionally see older aircraft for sale that have been well maintained, are corrosion-free, and are offered at what seem to be screaming bargain prices.

My advice to all but the most experienced aircraft buyers is to be wary of older airplanes, particularly older complex airplanes. There's a good reason for their enticingly low asking prices: An older airplane can easily turn into a money pit. In fact, that may be precisely why it's for sale.

You may figure that if the purchase price is low enough, you can afford to spend the money to refurbish that older airplane into something snazzy. That may be true if you're planning to keep the airplane for a long time. But if you sell it anytime soon, you'll probably find that its market value is far below what you paid for it plus what you invested to refurbish it.

Unless you're an A&P with lots of free time and looking for a "project airplane," my advice is generally to buy the latest model year you can reasonably afford, and to avoid aircraft requiring high-ticket refurbishment.

WORN PAINT OR INTERIOR

Don't hesitate to buy an aircraft just because the paint or interior are getting long in the tooth. Inexperienced buyers tend to get too hung up on cosmetics. What really counts is what's under the paint and beneath the carpets. I'd buy a mechanically sound, corrosion-free airplane with shabby paint and interior in a heartbeat.

Think of paint and interior like you think of engines: something that wears out and has to be redone periodically. Doesn't it make more sense for you to do this than the seller? Shouldn't you get to pick the paint colors and upholstery materials?

The condition of paint and interior tends to be well reflected in the selling price. If you buy an aircraft with worn-out paint, you can expect the selling price to be discounted enough to cover a substantial portion of the cost of repainting.

PREBUY DISCREPANCIES

You've found an airplane you really like a lot and arranged to have a prebuy by a mechanic you trust. The prebuy turns up significant mechanical discrepancies. Now what do you do?

That's easy: First, ask the prebuy mechanic to give you a list of the discrepancies he found with estimated cost of parts and labor to correct each one.

Next, present those findings and repair estimates to the seller, and ask him to reduce his selling price enough to cover the repair cost. If the seller agrees, you've got a deal; if not, you walk away and find another aircraft.

Some discrepancies—corrosion damage to a wing spar, for example—may be so costly to repair that they'll instantly kill the deal. But most discrepancies—say, a soft cylinder or an inoperative autopilot servo—should be readily resolvable.

I recall one case where the prospective buyer of a \$500,000 Cessna 421C walked away because the prebuy revealed two cylinders with low compression. In another case, the prospective buyer of a \$350,000 Cirrus SR22 walked away because he couldn't come to agreement with the seller over whether the Bose headsets would be included in the purchase. In both cases, the deal-breaking dispute was over something that represented less than 1 percent of the purchase price. That's crazy!

Good, clean, mechanically sound, corrosion-free airplanes are getting harder and harder to find, so don't let a good one get away because of a problem that's easy to fix.

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