

TIPS ON BUYING USED AIRCRAFT TIPS ON BUYING USED AIRCRAFT - AOPA

Importance to Members

Buying an aircraft is an important investment and the many aspects of aircraft ownership should be seriously considered before signing on the dotted line. AOPA is committed to making the purchase and ownership of your aircraft as rewarding as possible. This subject report will present those topics that should be considered when purchasing a used aircraft. For example, the pre-purchase inspection is a very important and often over looked precaution when deciding whether to purchase an aircraft. Many aircraft have underlying flaws that would cost thousands of dollars to correct, which are found by doing a pre-purchase inspection. Prospective buyers can ask the current aircraft owner to correct them, or negotiate new price. Another thing to consider is time between overhaul (TBO). For the sake of example, consider you are purchasing a 1977 C-172N for \$40,000. The TBO for this aircraft is typically 2000 hours, and costs roughly \$20,000; or half the value of the aircraft. If the aircraft you are considering buying has 1800 hours on the engine, you need to expect to spend an additional \$20,000 on the aircraft in your first 200 hours of ownership. Knowing this, it would be in your best interest to negotiate a lower price for the aircraft. This subject report will walk you through the process of buying a used aircraft and focus on the important things to consider before you accept the deal.

Should you encounter a situation not addressed in this report or have any questions regarding the information it contains, please call our staff of aviation specialists at 1-800/USA-AOPA (872-2672). Also, check out the extensive Web resources on AOPA's website devoted to [Aircraft Ownership](#).

Overview

The purchase of an aircraft is a major commitment that should be carefully considered. This is especially important when buying a used aircraft. AOPA recommends a buyer take the following steps before seriously considering a purchase. [A Vref](#) should be done for the aircraft under consideration. This will allow the buyer to see if the aircraft is priced reasonably. In addition, have a pre-purchase inspection completed; this will help avoid any surprises. Verify that parts can be obtained for the aircraft, and that local mechanics can work on it. Always fly the aircraft before you

buy; this is the most straightforward way to get a good feel for whether the aircraft is a good fit for you. Thoroughly examine aircraft records and engine logs, looking for unusual entries. If you see an entry for “Replaced sections of fuselage skin” you should be suspicious of a gear-up landing. Do some research on the cost and availability of aircraft insurance. With a little advance planning and some research, your aircraft purchase will be a memorable experience, for the right reasons!

Analyze Your Needs

One of the most common mistakes in purchasing an aircraft is to buy impulsively without fully considering the effects of your decision. Take the time to analyze your requirements carefully and be realistic. Consider the typical flight loading, trip distance and conditions of flight, then compare aircraft. To avoid the trap of buying more than you need or can use, ask yourself if you really need all the fancy bells and whistles. If possible, rent the type of aircraft you are interested in to get a feel for how well it will meet your requirements.

Technical Information

Financing

The amount you borrow will have substantial impact on the total cost of your purchase; therefore, it pays to put some effort into finding the right source of financing. Interest rates on aircraft can vary widely and may reflect a bank's knowledge, or lack of knowledge, about the subject. [AOPA Aviation Finance Company, LLC](#) is available to help members find the right financing for new and used general aviation aircraft..

For detailed information about financing, loans, and operating costs please see the [Operating Cost's document](#).

Valuation Factors: [VREF Aircraft Valuation](#)

Do you know the major factors that affect resale value? Generally speaking they are:

- **Engine hours** — perhaps the most common influence on resale value. The closer an engine is to its recommended time between overhaul (TBO), the less its value. Equally important is a record

of consistent use coupled with a good maintenance program. Regular use helps keep seals and other engine components lubricated and in good shape.

- **Installed equipment** — such as avionics, air conditioning, deicing gear and interior equipment. The big item here is usually avionics that can easily double the value of some older aircraft. Also, older equipment is generally more expensive to maintain.
- **Airworthiness Directives** —ADs are issued by the FAA for safety reasons and are a fact of life for most every aircraft. Once issued, owners are required to comply with the AD within the time period allotted. It's important to look at the AD history of an aircraft. Check the nature of the ADs and whether they are recurring or one-time compliance. Make sure the logbooks show compliance with all applicable ADs. You can search for ADs on the [FAA website](#) or you can have a list prepared by [Aircraft Title and Escrow Service](#).
- **Damage history** — major repairs can affect the value of an aircraft significantly, but may be hard to pin down. A damage history will decrease the value of an aircraft, depending on the type of accident, nature of the damage and the degree to which major components have been involved. Any aircraft with a damage history should be closely scrutinized to make sure it has been properly repaired in accordance with the applicable FAA regulations and recommended practices.
- **Paint/interior** — used on occasion to give "tired" aircraft a quick facelift. Check new paint jobs carefully for evidence of corrosion under the surface. Interior items should be checked for proper fit and condition. Done properly, both items enhance the value of the aircraft.

Overhauls

Be careful of the terminology used to describe engine condition. A top overhaul involves the repair of engine components outside of the crankcase. A major overhaul involves the complete disassembly, inspection, repair and reassembly of an engine to specified limits. If an engine has had a top or major overhaul, the logbooks must still show the total time on the engine, if known, and its prior maintenance history.

A "zero-time" engine is one that has been overhauled to factory new limits by the original manufacturer and is issued a new logbook without previous operating history. As a general rule, an aircraft with a "zero-time" engine has more value than the same aircraft with an overhauled engine.

Fly Before You Buy

It is always a good idea to fly the aircraft before you make your final decision. During the flight, carefully check all equipment and systems to determine if they are fully functioning.

Pre-Purchase Inspection

Before buying, have a mechanic you trust give the aircraft a thorough inspection and provide you with a written report of its condition. A pre-purchase inspection should include at least a differential compression check on each cylinder of the engine and any other inspections necessary to determine the condition of the aircraft. In addition to a mechanical inspection, the aircraft logbooks and other records should be carefully reviewed for such things as FAA Form 337 (Report of Major Repair or Alteration), AD compliance, the status of service bulletins and letters, and aircraft/component serial numbers. Ideally, the mechanic you select to do the inspection should have experience and be familiar with the problems that may be encountered on that type of aircraft.

Read more about [pre-purchase inspections online](#).

Part of your pre-purchase inspection should include an analysis of the spare parts market. Difficulty in acquiring spare parts can cost you a lot of time and money, and ultimately risk grounding your aircraft. [Read more online](#).

Title/Ownership/Liens

Have an aircraft title search done. Don't make the mistake of finding out about a lien after you've purchased the aircraft. Title searches and related services are available through AOPA's Strategic Partner, [Aero-Space Reports](#).

Title Protection

Consider the protection afforded to you by the title insurance. For a nominal fee you can protect yourself from surprise claims against your aircraft's title.

Sales Contract

Once you have decided to buy a particular aircraft, put the terms and conditions of the agreement in writing. This is for the protection of both parties since it is often difficult to enforce verbal contracts. The agreement need not be complicated, but it should clearly state the intentions of the parties and cover any warranties made by the seller. Since state laws govern the interpretation of commercial agreements, we recommend that your contract be drafted with the assistance of a local attorney.

A [sample agreement](#) is available online.

Aircraft Records

Make sure the following documents are available and in proper order for the aircraft: Airworthiness certificate, engine and airframe logbooks, aircraft equipment list, weight and balance data, placards, and FAA-approved aircraft flight manual or owner's handbook. Missing documents, pages or entries from aircraft logbooks may cause significant problems for the purchaser and reduce the value of the aircraft.

Unusual/Exotic Aircraft

Generally, the more unique the aircraft, the more unique the problems. Out-of-production aircraft may cause difficulties because of parts shortages or unusual design features. Check on parts availability and product support for any older model you may be considering. In the case of a homebuilt, keep in mind that you are buying an experimental aircraft that has been handcrafted. You may find some mechanics reluctant or unwilling to perform maintenance on such aircraft because of their unfamiliarity with the design and construction, or because of liability concerns.

Insurance

Seek the help of an [experienced aviation underwriter](#) when determining what coverage you need. Check on hull rates before you buy so you won't be surprised. Some aircraft are insurable only at very high rates because of age or other factors. Avoid the trap of either over-insuring or under-insuring. Each has its unique problems that can be handled by securing the proper amount of coverage appropriate to the risk. An experienced underwriter or agent will be knowledgeable about

any minimum insurance requirements that may be mandatory in your state. When shopping for insurance compare coverage, not just premium cost. Check on the reputation of any insurance company you intend to do business with. Ask for a sample policy and read it carefully so you can compare features. Contact [AOPA Insurance Services](#) for more information or call for competitive rates (800/622-AOPA).

State Registration

Determine whether you will need to register your aircraft with the state. Some states have registration requirements and impose a fee based on aircraft type, age, value or weight. In some instances this fee is in lieu of personal property taxes. See our [online tax guide](#) for more information.

State registries are [listed online](#).

Taxes

Determine what state sales or use tax might apply to your purchase. AOPA's *[Pilot's Guide to Taxes: Income, Personal Property, Sales and Use](#)* offers a great deal of information.

At Closing

Because of the importance of properly completing and filing ownership documents, AOPA recommends that you not allow other parties to the transaction to submit ownership documents affecting your interest in the aircraft.

Final Inspection

Visually inspect the aircraft prior to taking possession to assure yourself that no damage has occurred since the pre-purchase inspection and that all contract conditions have been fulfilled. Also, make sure the necessary documents as required in FAR 91.419 are transferred with the aircraft at the time of sale.

Bill of Sale

Have the seller execute a Bill of Sale, [FAA Form 8050-2](#) according to the instructions provided. Make sure that the seller signs his or her name, in ink, as it appeared on the previous Bill of Sale.

Aircraft Registration

Execute an Aircraft Registration Application, [FAA Form 8050-1](#), and submit this, along with the Bill of Sale and a \$5 recording fee, to the FAA.

The Aircraft Registration Application, [AC Form 8050-1](#), is now available for download on the FAA's Web site. If you use a P.O. Box as a mailing address, you must also provide your street or physical location on the application.

Your application for aircraft registration **must** include the typed or printed name of each signer in the signature block. FAA will return any applications that do not include the printed or typed name of the signer.

The pink copy of your Registration should be retained and placed in the aircraft as a temporary registration certificate. It is valid for flight within the United States for 90 days. At the same time, submit any necessary state registration forms and fees to the appropriate state office.

FCC Forms

As of mid-1996, the previously required FCC Aircraft Radio Station License is no longer required within the boundaries of the continental U.S. Note: Although countries adjoining the U.S. realize this and are not asking to see a "station license," ICAO {International Civil Aviation Organization} signature countries still have this law on the books. Check with AOPA for updates on this issue for international flights. 800-USA-AOPA (872-2672).

Paperwork

More information on the [paperwork required for purchasing an aircraft is online](#).

Where to Look: Sources of Information — Finding the Market

Apart from *AOPA Pilot*, there are several noteworthy publications that carry information about, and advertisements for, used aircraft. Some of these include:

- *Trade-A-Plane* - Consists of nothing but advertisements, insurance, parts, avionics, and every imaginable type of airplane for sale.
- The *Aircraft Bluebook-Price Digest* - Is an often-quoted source of used aircraft price information. It is intended for use by aircraft dealers, service facilities, manufacturers, lending officials, insurance officials, government agencies, and certain consultants — not the general public. Those who feel they are qualified must submit proper affiliation identifications with their subscription orders.

Buzzwords: Deciphering the Ads

As prospective buyers of used aircraft pour over classified and display advertisements, there is apt to be some confusion. To keep costs down, advertisers use certain abbreviations to indicate an aircraft's condition or features. A time, expressed in hours, usually precedes these abbreviations.