

# Guide to aircraft ownership

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## Introduction

In this section we'd like to introduce you to some information on aircraft ownership, costs, and maintenance and even how to buy one. You'll probably have some questions afterward, so feel free to contact us for further information.

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## The Private Pilot

Many pilots and aspiring pilots consider ownership at some stage. Whether or not to own your own aircraft will depend largely on your use of the aircraft. Are you able to use it for business? Is it simply pleasure in the knowledge that you have your own aircraft, the way you like it, to fly when you want? Or maybe you want a plane in which to learn to fly and enjoy after you have your licence. Others consider ownership today, simply because of the age of the average aircraft at their flight school or aero club, often not wanting to fly around any longer in something that's simply too old. These are the most common scenarios for private owners so we've designed the information to assist you.

## The Business Owner/Pilot

Other customers realise the potential to operate an aircraft in the context of their business or to mix business with pleasure. Personal and business aviation can often uncover business opportunities, assist to widen your personal influence or look after customers whom your competitors can't or won't. Buyers may or may not already fly themselves. In fact, many buyers in this category are non-pilots who simply use their aircraft as a tool in their business. Some also consider the philanthropic opportunities an aircraft can provide and donate flying hours to worthy causes.

## How much is an aircraft?

Late model pre-owned aircraft that are low time and 'new-generation' less than ten years old with some sophistication and performance, run between \$A 400,000 for a new-generation, late model single-engine piston aircraft, up to around \$A6.0m for a jet (and everything in between). Helicopters can be similarly priced. Of course, you can definitely spend more and sometimes less, but broadly this is the range in which most of our buyers are interested.

In considering your choice of aircraft, consider specifically what you're wanting, in particular...

- How many seats? That is, how big does my plane need to be? It may be nice to have ten seats but if on average there are only 3-4 of you on board, then the rest could be wasted and cost more to purchase, operate and insure for no real gain
- How far non-stop do you wish to go; make a list of your destinations, we'll do the rest.
- Do you want to operate into remote and/or unsealed airstrips? These determine issues of performance (aircraft weight, range with passengers, power, durability)

and the ability to take-off and land safely under more varied conditions, navigation tolerances and night operations.

- Do you want a pressurised cabin (to cruise above 10,000 feet and most weather)?
- What technology? Technology plays a part in most aircraft buying decisions today. Access to satellite or cell phone, data and email; entertainment systems; operational technology too such as synthetic vision, terrain awareness, traffic and other hazard avoidance systems, once available in only a handful of aircraft, is today readily available in many aircraft.

Once you have considered these questions and probably others, you can now assess some options. We can help by working up a mission profile for various aircraft options based on your needs and budget.

## **I'm planning to fly myself, do I need another pilot?**

As an owner-pilot intending to operate the aircraft yourself as some of our customers do, you might ask, 'how do I match the plane with my ability?' Your ability to operate your own aircraft safely, will be determined by your training so far, your discipline and your currency. Several customers have purchased aircraft from us, not based on where their skills were at the time, but rather on where they'd like their skills to be. This is pro-active thinking; they invest in their aircraft, but also in themselves.

Some aircraft we sell, including some light jets are fully certified for single-pilot operation. Some of the more advanced turbine aircraft whilst single pilot certified, may require more time before an owner/pilot feels completely comfortable. This is perfectly normal. Depending on your previous experience it may take 50-100 hours to feel completely comfortable flying an advanced turbine aircraft of your own.

For some owner-pilots having a safety pilot along is a great option, as it allows time to get familiar and 'up-to-speed' – to gain confidence in their new aircraft, while having a reliable buddy-system to share the learning and initial workload.

## **Aircraft Insurance**

In Australia, aircraft insurance is readily available at competitive prices. There are two distinct parts to aircraft insurance. The first is Hull insurance. This relates to the actual, physical aircraft, avionics and engines. Based on the value, aircraft type, pilot experience and claims history, premiums run between 0.5% and 5.0% of the aircraft value.

The second is Liability insurance. This is third party liability covering damage to other property, injury to passengers and those outside the aircraft. This varies depending

on type but is usually based on the seating capacity. Coverage of \$A20m is common though \$A50m is also offered. If you're operating your aircraft in or through Europe \$US150m public liability is now mandatory.

## Aircraft Hangarage

Like any other real estate, hangars are subject to supply and demand. In recent time airport owners have raised prices (or the ground rental for the land on which they're constructed). Often you can build your own or share a hangar with other like-minded owners. It will depend largely on where you want to keep your aircraft and the condition of the actual hangar. We can provide details on this and we most often find suitable hangarage for our customers as part of our post sales support. A medium size twin engine turbo-prop or light jet will be approximately \$1,500-\$2,500/month to hangar. Some handling equipment is also required such as a small motorized tug for moving the aircraft in and out, but we provide ground handling as part of our aircraft management offering.

## Airport and Airways Charges

Several charges are levied by airport owners. Most notably, landing and parking charges which apply at all large airports and most smaller airports. Landing charges can be from \$5.00 at a small country airport up to \$200+ at a capital city primary airport, depending on the max takeoff weight of the aircraft. Parking varies and you should allow a daily rate for each airport at which the aircraft is parked or will visit. Rates are available from the airport authority.

Airways (enroute) and terminal charges (for using local airspace) also apply to some flights. For up-to-date information visit [www.airservices.com.au](http://www.airservices.com.au) We calculate these costs when we prepare your operating costs and route analysis.

## Fuel Costs

Fuel prices fluctuate based on the location in Australia, but broadly as at time of writing aviation gasoline (AVGAS) is \$2.30 per litre or \$8.75 per gallon. Jet fuel (kerosene), referred to as JetA1 or simply 'Jet' runs \$1.90 per litre or \$7.22 per gallon.

You can expect to budget \$ 138.00 per hour on fuel for a modest high-performance six seat, single engine piston aircraft.

A twin-engine turbo prop using JETA1 will have a fuel budget of around \$ 800-\$ 1,200 per hour.

## Can I rent out my aircraft and get income?

For aircraft buyers, this is a common question and again will depend on your own usage. If you are happy to make your light aircraft available to say a flight school or charter operator, then this can be a viable option for those times you're not using the aircraft. If a flight school uses the aircraft they'll pay you an agreed amount per flying hour. Contact us to get some details on what you should charge.

For owners of larger aircraft which are suitable for charter, then this too is a good option, provided it's placed in the hands of a competent organisation. There are some legal issues to do with this type of "cross-hire" so contact us to get the details of what you'll need to ask.

Incidentally, we're sometimes asked if on this basis, an aircraft is good for solely investment purposes. The answer is 'no'. Any income derived is at best supplemental and could not realistically be considered 'investment standard'. The way to consider it is to accept that part of the cost of private aircraft ownership should be attributed to the owner deriving usage, pleasure and benefit, be that business or private and in doing so, offsets any purely monetary return as found in other investments (tax benefits notwithstanding). So, in terms of income potential and straight return on investment there are probably better investment options around.

## Aircraft and the Australian Tax Office

After 1 July 2002, if you owned an aircraft which you used for the first time for any purpose, then a tax deduction may be available to you. The deduction is available to the extent you use the aircraft for a taxable purpose and is based on the asset's decline in value.

The decline in value of the asset is calculated using the asset's effective life. Broadly speaking, the effective life is the period the asset can be used by anyone to produce income.

The new legislative caps on the effective life of aircraft are shown in the table below:

<b>Asset</b>	<b>Capped Life</b>
Aircraft used predominantly for agricultural spraying or agricultural dusting	8 years
Helicopters used predominantly for mustering, agricultural spraying or agricultural dusting	8 years
Other aircraft	10 years

Before the caps on the effective life of aircraft were introduced, owners of aircraft could choose to use the relevant effective life determined by the Commissioner of Taxation, or to work out the effective life themselves in accordance with the legislation.

For more information on the effective life of depreciating assets call the Tax Office on 132478 or visit the ATO website [www.ato.gov.au](http://www.ato.gov.au) where you will find the following items that may be useful:

- Effective life of depreciating assets;
- Taxation Ruling TR 2000/18 (as at 1 January 2003) - containing the Commissioner's determination of effective life for various depreciating assets; and,
- The Income Tax Assessment Act 1997, section 40-102

Note that there is no duty or import tariffs on aircraft in Australia, but GST is payable on aircraft imports. GST may be payable on private sales depending on the seller's situation. GST is not payable on export sales. There are no state taxes on aircraft in Australia.

Taxation implications vary depending on individual circumstances. The above should not be considered taxation advice. We do not offer advice on taxation matters and recommend you seek independent advice from a taxation professional.

## **Aircraft Maintenance**

Aircraft maintenance covers (a) airframe (b) engines (c) propellers (if applicable) (d) instruments (e) radios. There are several ways in which an aircraft can be maintained, for example, there's the manufacturers recommendations (and system of maintenance complying with such) or other individually approved systems depending on the aircraft type and whether private or charter category.

Generally speaking, maintenance is based on flight time (elapsed hours) and/or calendar time, depending on the component, part or inspection to be carried out. For example, a common inspection is a 100 hourly inspection. This falls due each 100hours or 12 months whichever occurs first. Larger or more complex aircraft have a phase or check system where maintenance is done progressively.

Maintenance is a precise business, work is meticulously recorded and the industry is highly regulated. Both the maintenance company and their personnel can be held liable for any negligence or malfeasance. Regulatory compliance costs for maintenance companies are high and increasing. Qualified, experienced people are also getting scarce. You can still get high quality work completed on time, but you will need to budget accordingly. As a general indication labor is charged at between \$100-200 per hour depending on the complexity of the work.

Sound, quality maintenance is an investment in your aircraft and will repay dividends -not only in safety but also resale value. When it comes to looking after your aircraft, the cheapest is seldom the best choice. We can assist in arranging quality maintenance from proven providers.

## Aircraft Engines

There are two types of engine used on aircraft today, piston and turbine. Although new technology has meant the emergence of other engine types such as diesel, but these are still rare.

**Piston engines** are very similar to your motor vehicle engine but with far more redundancy and with life limits of between 1,500 to 2,000 hours, at which time the engine is removed, inspected, components overhauled or replaced and then reinstalled. There are different types of overhauls, download our piston-engine info sheet on our website for more detailed information.

**Turbine engines** such as in turbo-props and jets have lives ranging from 2,500 hours to 5,000 hours and beyond, again depending on the engine model, operator and monitoring regime. These engines have a mid-life inspection called a hot section inspection (H.S.I) which, as its name implies examines the most heat affected parts of the engine for signs of fatigue, stress and tolerance degradation. Upon reaching the maximum engine life, they are removed and overhauled, the engine is reinstalled and then starts its 'next life'. More advanced engines can continue in service provided they're managed and monitored correctly.

Most private owners nowadays own their aircraft for only 500-1,000 hours (say up to 8 years) before upgrading, so it's possible to own an aircraft and never actually overhaul an engine. However, remaining engine life is a big factor in determining resale values.

## Aircraft Propellers (where applicable)

Propellers too, have recommended overhaul intervals based on calendar time and flight hours. Depending upon the prop model, this could be 1,500 or 2,000 flight hours, but there's also a calendar limit (typically five years). Other propeller components include prop governors and de-ice equipment.

**Aircraft Instruments** and radios are generally inspected at 12 monthly intervals.

All of the above maintenance can be referred to as 'scheduled maintenance', that is, we're expecting it to come along. Some non-scheduled maintenance, whilst it can't be predicted - can be expected. This applies mainly to unforeseen inspections or repairs that are mandated by the controlling aviation authority (in Australia that's CASA), in consultation with the component manufacturer. These are referred to as ADs (Airworthiness Directives) Service Bulletins or Mandatory Service Bulletins. These can appear because the manufacturer or an aviation authority has discovered something that affects your model aircraft and therefore calls for an inspection or replacement of a component.

Depending on the circumstances, these are sometimes paid for by the component manufacturer, some may be covered by warranty if that still applies to your aircraft or engine. Most often, the owner will be responsible for the cost of such maintenance

## **Maintenance Plans**

For more sophisticated aircraft, there are maintenance plans and parts management programs to which owners can subscribe. These are often run by engine companies and or other independent companies. By paying a monthly or even hourly fee, you receive maintenance, overhaul and spare parts coverage at varying levels depending on your chosen coverage (similar to insurance). It provides predictable costs for your operations – it may or may not be cheaper, but it does remove the financial unpredictability.

Call us and we can provide more details and discuss what's recommended for your aircraft type.

## **Where do I buy a plane? Are there dealers?**

Yes. There are authorised dealers and any number of brokers. It's important to look around for what you want and form your own opinion on aircraft and who best can serve your needs, who you can work with and who has some rapport and understanding of your aspirations. Have a look also at the manufacturers' web sites and those of their local representatives.

*"We're confident that like many of our customers, once you look around you'll select our services, because of our attitude, understanding, experience and the completeness of our service offering" SM.*

## Importing an aircraft

Often the way to get what you really want and like, is to import an aircraft - most often from the US. This gives you far greater choice and better quality from what is after all, the world's aviation Mecca.

There are many facets to importing aircraft. We have been looking after aircraft imports for over fifteen years through changing world economies and technologies. Generally speaking, smaller aircraft (six seats or less) are disassembled, containerised and shipped to the destination, whilst larger more complex aircraft are flown (ferried). We do offer a genuine door to door service which features..

- Our own personnel 'in-country' working for you in verification and inspections
- Australian-based company supporting you
- Our tight team of international service providers who stick to our proven system
- Protection of your interests at all times

### **Important note:**

*Some dealers and brokers claim to be import specialists and they possibly are, but more often it seems their specialisation is based on opportunism and a strong AUD, rather than experience. Ask these "specialists" for example, when they themselves last flew an aircraft across the Pacific. Our knowledge is first hand.*

*Some buyers may consider a DIY approach to buying and importing aircraft. They figure that if there's money to be made in importing aircraft, then there's money to be saved. From having seen the aftermath of deals gone wrong and having had to occasionally "rescue" a buyer, we can truly say that whatever you might possibly save, isn't worth it.*

## The 10 Golden Rules of Buying an Aircraft

- 1.** Get independent advice from an industry professional.
- 2.** Use an agent or a broker who works for you. Good ones are well connected and can light the way. Even if you are buying factory-new or locally, have someone on your side.
- 3.** Ask the salesman, agent or broker how they get paid. If not by you, then they're working for someone else.
- 4.** Insist on an independent pre-purchase inspection for any pre-owned aircraft, as well as log book verifications and a report with pictures.
- 5.** Obtain clear title on the airframe and engines. A visit from the 'repo-man' can really spoil your day.
- 6.** Have your funding set and be ready to swoop. Even small deposits are a powerful negotiating tool.
- 7.** Clear the decks for your support team. We've seen good deals lost, while the buyer tries to talk their family, their partner, their accountant or colleagues around.
- 8.** Never import an aircraft yourself or buy from a private individual in another country.
- 9.** Be wary of internet listings. All is not what it seems.
- 10.** When in doubt, see Rule 1.



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