

CANADIAN OWNERS AND PILOTS ASSOCIATION

COPA Guide to Buying an Aircraft





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Part I - An Airplane of Your Own?

Most pilots learn to fly on rented aircraft. After earning their pilot's license, they continue to rent airplanes, often from the same school where they learned to fly. For many pilots the shortcomings of renting quickly become apparent – you can't take the plane away without paying a minimum charge per day, even if it is just parked at destination. Other shortcomings of renting include a very limited number of types available to rent, that the plane may not be available when you want and even that some rental aircraft may be a bit worn out and not very lovingly cared for.

At some point most pilots start dreaming of the advantages of owning their own aircraft. Just think a myriad of different types that you could possibly own, fly whenever you want – the aircraft will be always available. Owning can be a lot cheaper than renting, especially if you fly a lot, also the more flying time you acquire the safer pilot you will be. And you can maintain it and equip it the way that you want to. It would be yours!

Of course, there are disadvantages, too – when it breaks you would have to fix it or pay to have it fixed. Owning may be more expensive than renting, especially if you don't fly very much. You have to consider things that the renter-pilot doesn't, like where to store the plane, who to get to maintain it and so on.

For most pilots the choice is easy – owning beats renting for them. It is true that most pilots who once own an airplane don't happily go back to renting again!

This COPA Guide is designed to help you understand what is involved in buying your own airplane – to take the mystery out of the process. Any pilot can own an airplane – the greatest barrier should be the cost, not learning how to buy an airplane!

Scope of this Guide

This guide is the newest version of a long-standing and very popular COPA Guide. The original book was entitled *The COPA Guide to Buying a Used Aircraft in Canada* and dealt exclusively with buying used, certified aircraft in Canada.

This version has been expanded and discusses buying new and used aircraft, certified, amateurbuilt, owner-maintenance category, ultralights, warbirds, kits and foreign aircraft. There are lots of categories to choose from!

NOTE

This guide contains information of a general nature only. It should not be considered a definitive document. Use of this guide does not make COPA responsible for legal action taken against you. Individual circumstances involving aircraft, and aircraft sales and the law vary greatly. Ensure that you read and understand the current CARs before buying and flying! For information that applies to your individual circumstances consult an aviation lawyer.



Used Certified Aircraft

Certified aircraft have a standard *Certificate of Airworthiness* (C of A) and therefore meet all the applicable certification requirements.

Most pilots learn to fly on certified aircraft, so those are most familiar to them. Importing and exporting certified aircraft is a fairly simple venture in Canada. Certified aircraft include popular light airplanes such as the Cessna 150, 152, 172, Piper Cub and Cherokee, Beechcraft Bonanza, Mooneys, Maules and other well-known brands. This category also includes certified gliders, helicopters, balloons, airships and even some certified gyroplanes. These are factory-produced aircraft and they must have their maintenance release signed by an AME after maintenance work is completed.

Certified airplanes have very predictable handling characteristics – they are stable and generally non-demanding to fly compared to some ultralights and amateur-builts.

New Certified Aircraft

If you have decided to buy a factory new certified aircraft congratulations! This is definitely an easy way to go! You won't have to worry about liens and title searches, pre-purchase inspections and other factors that are important when buying a used aircraft. Your new aircraft will come with a warrantee that will cover any defects for the first year or more. Also, new airplanes are not usually "high-maintenance", unlike some older aircraft. Your new aircraft will likely be well equipped with state-of-the-art avionics and the latest in safety and comfort features. What more could you ask for?

The downside in buying a new aircraft is that they are expensive! Not only is the purchase price higher than a used aircraft, but the insurance premiums will be proportionally high as well. This can make operating a new aircraft a lot more expensive than operating an older model of the same type.

The other factor that you will have to consider is depreciation. New aircraft lose their value, just like new cars do. Small private aircraft typically depreciate an average of 6% per year when purchased new. average of almost 6% per year.

Owner Maintenance Aircraft

O-M aircraft is a relatively new category in Canada and it is unique in the world at this time. No other country allows O-M aircraft! The O-M category is for older certified aircraft including many "orphaned aircraft" that are no longer supported by their manufacturers.

This category allows an owner, who is a pilot, to sign the maintenance release and to use noncertified parts on the aircraft. The main aim is to keep older planes flying and some wonderful things are being done in this category. O-M aircraft operate with a *Special Certificate of Airworthiness – Owner Maintenance* as their flight authority.

Currently O-M aircraft are not permitted in US airspace and cannot be returned to its previous category – a definite consideration if you are thinking of buying an aircraft in this category.

If this category interests you please refer to <u>The COPA Guide to the Owner Maintenance</u> <u>Category</u>, a book that offers complete information on putting aircraft in this category, maintaining them and flying them. The balance of this guide will just provide information about buying O-M aircraft.

Ex-Military Types & The Limited Category

Who hasn't thought about streaking across the countryside in their own T-33 or splashing down in a lake somewhere in a float-equipped UTVA-66? Military aircraft have a romance all their own that lures many aviators.

Under the new CAR rules introduced by exemption in March 2002 many ex-military aircraft can now be owned and flown for recreational purposes. The rules are pretty straightforward and basically if you can show Transport Canada that you can maintain it then you can own it and fly it. These aircraft operate under a *Special Certificate of Airworthiness – Limited*.

Currently the rules are contained in an exemption to <u>CAR STD 507 Appendix F.</u> COPA has a new book that is a useful introduction to these aircraft called the <u>COPA Guide to the Limited Class</u> that explains the category and how it works. Under these rules, all ex-military and other non-type certified aircraft in this category are divided into three different groups with regard to their maintenance requirements:

Group 1 consists of gliders, balloons, piston-powered rotorcraft, basic training and communication aeroplanes, light transports, and equivalent aircraft types (total horsepower below 1000 BHP). Aircraft in this category are maintained by an appropriately qualified AME.

Group 2 consists of turbine-powered rotorcraft; World War II era aircraft, including fighters, medium bombers and transports; basic jet trainers; advanced piston-powered trainers; Korean War era aircraft, including first generation jet fighters; and equivalent aircraft types. Aircraft in this category are maintained by an AME with an appropriate Restricted Certifying Authority (RCA) or by an appropriately qualified Approved Maintenance Organization (AMO).

Group 3 consists of all aircraft not included in Groups 1 or 2. This includes jet fighters and other similar types. Aircraft in this category are maintained by an appropriately qualified Approved Maintenance Organization (AMO).



It is worth noting that many "ex-military aircraft" don't come under the rules for the *Special Certificate of Airworthiness – Limited*. Aircraft such as the Harvard, Tiger Moth and Chipmunk all have Type Certificates and are eligible for standard *Certificates of Airworthiness* because they are certified aircraft. Check out the paperwork requirements carefully while you are researching the aircraft you are interested in.

Amateur Builts

Buying a used amateur built aircraft is often a good way to get a lot of performance for a reasonable price. It is also a great way to find an affordable helicopter or gyroplane. Many people buy used amateur-built aircraft because they want an interesting aircraft that they can maintain themselves, but who don't have the time available to build one of their own from plans or from a kit.

Amateur built aircraft are subject to pre-cover and pre-first flight inspections from an <u>MD-RA</u> <u>Inspector</u> before they get their flight authority for the first time, so there is quality control in their construction. They fly under a *Special Certificate of Airworthiness – Amateur Built*. Even if you buy a used amateur built aircraft the owner is permitted to do all the work on the aircraft and also sign the maintenance release for the work completed.

There is a huge variety of aircraft that fit into this category – airplanes, helicopters, gliders, balloons, airships and gyroplanes to name some possibilities.

Non-certified amateur built fixed-wing and rotary-wing aircraft are no longer limited by weight or by passenger occupancy. Read article April 2009 <u>Weight off shoulders of Amateur Builders.</u>

Specific reference to aircraft weight or occupancy limits and in the case of lighter than air aircraft, buoyancy or cubic capacity limits were simply removed from the existing exemption Section 549.01 of the CARs and Chapter 549 of the Airworthiness Manual. Although this new amendment is not available on TC's website as of the writing of this article. The referenced document can be found at:

http://www.tc.gc.ca/civilaviation/regserv/affairs/exemptions/docs/en/1298.htm

Complete rules for this category can be found in an exemption to <u>CAR STD 507 Appendix C</u>.

Once completed and flying, amateur built aircraft comply with the same flying rules that govern certified aircraft.

COPA has a guide that gives lots of information on amateur-built aircraft <u>*The COPA Guide to*</u> <u>*Amateur Builts*</u>. Reading this book is a must if you are considering buying an amateur-built.



Ultralights

Until 2005 ultralights had been the fastest growing segment of aviation in Canada, since 2005 certified aircraft held that honor. New ultralights added to the Canadian Civil fleet still account for a large proportion of the aircraft registered each year.

For some people, ultralights are the only affordable form of flying available. Other pilots could afford a bigger and more expensive aircraft but enjoy the simplicity of open cockpit "low-and-slow flight" that is the hallmark of ultralight flying. That said there are some very fast and cross-country capable ultralights being flown in Canada. There is no doubt that ultralights are great fun to fly and are relatively inexpensive to own and maintain.

<u>CAR 602.29</u> and the Transport Canada <u>Ultralight Transition Strategy</u> currently govern ultralights. These proposed rules have become part of the CARs and can be found in the CAR 603 and 605 series. The only permitted uses for ultralights are private recreational flying and commercial flight instruction, rental and towing hang gliders. Other commercial uses such as crop spraying, aerial photography, towing gliders, carrying freight or passengers for hire are not permitted.

Canadian ultralights come in two flavours – Basic Ultralights (BULA) and Advanced Ultralights (AULA).

Basic Ultralights are the original ultralights. They were first developed in the mid-1970s, not by shrinking conventional airplanes, but by putting a motor on an Easy Riser biplane hang glider. Today in Canada, the rules have evolved over time and basic ultralights may currently have one or two seats, weigh up to 1200 lbs take-off weight and have a stall speed of 39 knots (45 mph) or less. Basic ultralights are not permitted to carry passengers, although they may be flown with two pilots on board or with a student and instructor. Helmets are required when flying basic ultralights. There are no specific maintenance requirements for basic ultralights, but protecting your investment and yourself means taking good care of your basic ultralight. Basic ultralights are all registered in the series starting with C-I.

Advanced ultralight airplanes (AULAs) started as a new category here in Canada in 1991. They are single or two seat airplanes that comply with the Light Aircraft Manufacturer's Association of Canada (LAMAC) publication called <u>Design Standards for Advanced Ultralight Aeroplanes</u> <u>DS10141</u>.

AULAs must be purchased as a kit or complete aircraft. For quality control reasons they cannot be built from plans. Changes were made to the category in June 2001 and, as a result, AULAs can now weigh up to 770 lbs for single seaters and 1232 lbs for two seaters. Under the revisions to the category, powered parachutes and hang glider-based trike ultralight designs may now qualify as AULAs.

AULA aircraft types are added to the TC Listing of Models Eligible to be Registered as Advanced



<u>Ultra-Light Aeroplanes (AULA)</u> when the manufacturer signs a Declaration of Compliance (D of C) for the type, and is submitted to TC with a copy of the Manufacturer Specified Maintenance Program. TC will review and may accept it for the list. The manufacturer of an advanced ultra-light aeroplane is also responsible for the "aftermarket" support for the continuing "fit for flight" condition of their aeroplanes.

Individual AULAs get their status from a *Statement of Conformity* (S of C) that the manufacturer issues when the plane is built. This S of C indicates that the plane conforms to the standard for the type. The S of C allows the AULA to be registered with Transport Canada as an advanced ultralight. AULAs cannot be modified without the written authority of the manufacturer and they must be maintained in accordance with the manufacturer's instructions. If an AULA is modified without permission from the manufacturer or not maintained as required then its *Certificate of Registration* will be cancelled. These aircraft may be re-registered in the basic ultralight category, if they qualify to do so, and will lose their passenger carrying status. Note that an AULA that has a gross take-off weight between 1200 and 1232 lbs cannot revert to the BULA category currently and will be grounded if it fails to continue to meet the AULA requirements, unless it can fit into the Limited Class. Maintenance records are required for all AULAs.

Used AULAs must have a *Fit for Flight Form* (FFFF) completed by the previous owner or else they cannot be re-registered in the name of the new owner as an AULA. See the <u>Ultra-light</u> <u>Transition Strategy</u> for more details on this requirement.

AULAs can carry a passenger, if the pilot is qualified to carry a passenger. This currently requires at least a *Pilot Permit - Ultralight Aeroplanes* with the *Passenger Carrying Rating*. Helmets are not required to be worn in AULAs, but may be a good idea depending on the design.

Starting at their inception in 1991, AULAs were registered in the C-F or C-G series, but since January 1997 they have been registered in the C-I series, like all other ultralights. There are still quite a number around that have C-F or C-G registrations.

COPA has a guide to ultralights that provides lots more information on this category or aircraft. Have a look at the <u>COPA Guide to Ultralights</u> for the complete story.

Aircraft Kits & Plans

There are currently over 700 different types of aircraft that can be built from kits or plans! That means that there is probably something there that will suit just about any potential airplane owner.

In Canada, kit or plans built aircraft have to meet the requirements for either the amateur built or ultralight categories. Have a look at the preceding paragraphs for information on the limits of those categories.



The main advantage of buying a kit or plans and building your own aircraft is that you will get exactly what you want and you will know everything about how it is constructed. After all, you will have pulled all the rivets, laid up all the fibreglass or clamped all the glue-joints yourself! Building your own aircraft can also save you a lot of money – you get a lot more performance at a lower cost by providing your own labour.

There are disadvantages to building your own airplane. It takes time to build an airplane – usually more than you expect. Most manufacturers publish a "number of hours to build". Some of these numbers are quite fanciful, while others are based on actual times that it has taken real builders to complete the aircraft. Most manufacturers use the time that it takes an experienced builder, with all the proper tools working full time to complete the kit. No matter how simple the kit, most first-time builders find that they need to double or even triple the estimated time to build. Consider realistically how much time that you will be able to spend on building per week. How long will it take to complete your dream plane?

Aircraft kits vary greatly in how long the manufacturer says it will take to complete them. Some simple ultralights can be built in 50-100 hours, while more complex projects can take 5000 hours or more.

A builder who can work on the project fulltime could realistically put in 2000 hours in a year. If you are working at a job fulltime and building your plane on the weekends you may find that 500 hours per year is as much as you can find to build. Under those conditions that kit that the manufacturer says will take 2500 hours to build (and will actually take you 5000 hours) will take ten years to complete! Can you hang in there that long?

Other factors to consider are tools and space. Do you have heated space big enough to build in? If it isn't heated then you won't be doing much building in the Canadian winter and that is when most airplane building happens! Do you have the tools you need or can you get them? Did you factor tools into the cost that you were expecting?

Perhaps the most important factor in building an aircraft is "spouse support". If your partner and other family members aren't 100% supportive of your airplane building then you will probably have a serious problem in finding the time and money to keep building. All factors to consider!

There are many factors to think about when assessing if you have the ability to build an aircraft. Aside from time, space, tools and spouse support there are skills, ability and training. Assessing your capabilities is a large topic. There are many good books that describe the challenges of building your own aircraft and how to deal with them. It is recommended that if you are considering building your own aircraft that you read one of those texts. One source of this information is <u>Choosing Your Homebuilt – The One You'll Finish and Fly</u> by former COPA Director Ken Armstrong.



There is no doubt that one of the most memorable moments in any pilot's flying career is the first flight in an aircraft that they built themselves. Almost all aircraft builders say, after that first flight, that it was all worth it. <u>The COPA Guide to Amateur-Builts</u> has lots more information on the considerations for building an aircraft in this category

Foreign Aircraft

What if the perfect aircraft for you isn't in Canada? In many cases it is possible to import an aircraft.

The first step is to ensure that it will qualify for a flight authority in Canada. Certified aircraft are usually not a problem, especially if they are certified in the USA. Make sure that aircraft is eligible for a <u>Canadian type certificate</u>. Other aircraft need to fit into the ultralight, amateur built or limited categories. Any aircraft that fits the Basic Ultralight definition of two seats or less, 45 mph or less stall speed, 1200 lbs or less gross weight and the <u>minimum useful load</u> <u>calculation</u> can be brought into Canada and registered as a BULA.

If they meet the definition of an amateur-built (51% rule) E-LSA (Experimental LSA), they can be brought in as an amateur-built; this class is not weight limited but data must be available to prove that the aircraft can be operated at the chosen weight. They can be brought in as an AULA, including restrictions to 1232 pounds and no additional allowance for floats. They can also be brought in as a Limited Class, with no weight restriction (other than that specified by the manufacturer – LSA are limited to 1320 pounds or 1430 on floats) but with a significant requirement to be maintained by an AME. In the Limited Class, LSA fall under Group A for determining operational and Group 1 for maintenance conditions.

AULA are more difficult, since this category does not exist outside Canada. If the aircraft is a listed AULA and manufacturer is willing to issue you a Statement of Conformity for the aircraft then you can register it as an AULA without too much difficulty. Without a S of C issued by the manufacturer you cannot register it as an AULA.

Importing amateur built aircraft used to be impossible in Canada. Due to COPA initiatives through CARAC, this is now possible! Foreign amateur built aircraft that meet the Canadian definition and have flown 100 hours airframe time are eligible, subject to an inspection when they enter Canada. The complete rules for importing an amateur built aircraft are located in <u>CAR STD 507 Appendix C</u> and there is lots more information in <u>The COPA Guide to Amateur-Builts</u>.





Pressurized Turbine?

So you have your heart set on a really hot airplane – something turbine powered and pressurized? There are some extra considerations there beyond the obvious requirement for a specific type rating (since it is probably "high performance").

The most important factor to consider is that all Canadian pressurized and turbine aircraft, not in commercial or flight training use, that are used to carry passengers are required to operate under <u>CAR 604</u> Private Operator Passenger Transportation. This means that you will need a Private Operating Certificate (POC). The POC program requires you to write and follow a Safety Management System for the operation of the aircraft, have a custom-designed maintenance program that complies with <u>CAR 625 Appendix D</u> (you cannot just adopt CAR 625 Appendix B & C as you can with other private aircraft) and meet minimum training and insurance benchmarks plus several other requirements.

Private Operator link at Transport Canada http://www.tc.gc.ca/eng/civilaviation/standards/commerce-business.htm

This is not to say "don't buy a turbine pressurized aircraft", just be aware that there are some extra requirements and costs involved.

Which Type is Right for You?

There are so many choices of categories and types of aircraft – how do you decide which one is right for you?

There are many different approaches to this question. Some people just start off by buying the



same type that they did their training in. There are advantages to that approach. For a low time pilot you can gain experience in owning and flying an aircraft that is familiar to you. There is less to learn about your new aircraft. Many of our most common trainers – Cessna 150s, 152s, 172s, Piper Cherokees, and Diamond DA20s all make excellent personal aircraft, especially for low time pilots.

Some people do detailed analyses of their needs and options - a scientific approach. This involves defining exactly what you need in terms of the number of seats, payload, range, speed, night flying and IFR equipment and other features. Of course, most people who use this approach start with what they <u>want</u> and then refine it down to what they really <u>need</u>, once they have looked at the costs. What they want is a 200 kt cruise speed, but 100 kts will probably suffice – especially when you consider the additional costs involved in doubling the cruise speed!

Some people simply decide that one type is for them based on previous flying experience or even on how the plane looks. There really isn't anything wrong with that approach. There is no data to show that this approach results in people being less happy with the airplane that they finally settle on. The real key is to find an approach that works for you and that you are comfortable with.

There is one effect that you should be aware of – just because you can afford to buy it doesn't mean that you can safely fly it! Many affluent pilots do their training on easy trainers, like the Cessna 150 like everyone else. Then as soon as they have their *Private Pilot License* they buy a Bonanza, a Lancair or an RV-8. They very quickly discover that they don't have the experience or the training to handle a hot airplane like those types. A wise pilot will move up through some intermediate steps before getting into fast and slippery aircraft. If you learned on a 150 your next step should be to fly the 172 for a while, then perhaps the 182. Diving from a 150 straight into a Cessna 210 is asking for trouble, whether you can afford to buy one or not. There is nothing humiliating about flying an aircraft that is within your capabilities, however running your hot new plane off the end of the runway into the approach lights is embarrassing! Plan to get an airplane that will allow you to "walk before you learn to run".

Who Can Own a Canadian Aircraft?

This is important! Not everyone can qualify to own a Canadian registered aircraft. The requirements are set by Transport Canada in <u>CAR 202.15</u> and are basically the same as in the USA and most other ICAO countries.

To own a Canadian registered aircraft, or a share of one, you must be

- 1. A Canadian citizen, or
- 2. A Canadian permanent resident (landed immigrant), or
- 3. A Canadian Corporation



Foreign citizens are not eligible to own Canadian aircraft, nor are foreign corporations.

If you are thinking about buying an aircraft and keeping it foreign registered have a look at <u>Keeping It Foreign Registered?</u> first.

Finding an Aircraft

So how do you find that airplane of your dreams? That depends on what you are looking for.

For all used Canadian aircraft, certified, amateur builts and ultralights the best source is *COPA Flight - Canadian Plane Trade*, the COPA magazine and the on-line version of Canadian Plane Trade.

For new aircraft, including kits and plans, contact the factory directly or the dealer in your area. You can find their ads in *COPA Flight*. Almost all aircraft and kit plane manufacturers have their own website and that is a good place to start gathering information. If you can't find their website address in *COPA Flight* or other publications a quick search using a web search engine, such as <u>Google</u> will usually locate the site quickly!

For locating aircraft in the USA, a great source is <u>Trade-A-Plane</u>. That publication is available in print or on-line for the price of a subscription. Another popular US source is the free on-line listings on <u>barnstormers.com</u>. Most aviation magazines offer classified ads. Magazines such as <u>KitPlanes</u> and <u>Powered Sport Flying</u> are good sources of classifieds for US ultralights and amateur builts.

Another good source is your local airport bulletin board. Most airports and flying schools have a bulletin board where people pin up notices of aircraft for sale. As a bonus you may find what you are looking for in your local area by this method.

Local aviation organizations can also be useful "word-of-mouth" sources of aircraft for sale. Local flying clubs, <u>COPA Flights</u> (190 throughout Canada) and other local organizations are all possibilities.

Most aircraft type clubs are a good source of classifieds for a particular aircraft type or family of aircraft types. Most popular aircraft types have a type club. There is more information about <u>Aircraft Type Clubs</u> later in this book.

If you are searching for a particular or rare aircraft one possibility is to search the Transport Canada <u>Civil Aircraft Register</u> for the type you are interested in. The Civil Aircraft Register doesn't include telephone numbers, but once you have the person's name you can locate their telephone number (if it isn't unlisted) through services such as <u>Canada 411 Find-a-Person</u>. You can then contact the owners of those aircraft directly and see if any are for sale. Many aircraft *are* for sale, but aren't being advertised at all. As a bonus, even if you don't immediately find one for sale you can speak to present owners about their thoughts on the aircraft and its performance. It is surprising how much information you can get from this method – and most owners are very glad to spend a few minutes on the phone to talk about their aircraft! It is unusual to meet a grumpy person using this method.

Contacting a Seller

When you locate a prospective aircraft seller the next step is to be prepared before you make the phone call. The seller is probably motivated to sell the aircraft and may not tell you the things that you should know. It is up to you to ask.

Experience has shown that some aircraft sellers are very honest and some are not. The best way to deal with not knowing the level of honesty of the person you are dealing with is, to quote Ronald Reagan, *"trust, but verify"*. Do not take anything at face value – check every claim made by a seller. This is very true of <u>liens</u> on the aircraft. Recently two cases have shown that aircraft sellers will openly claim that there are no liens even when they know there is an outstanding lien. You have to check for yourself.

Here is a good list of things to ask during that first phone call:

- 1. Aircraft Registration (good for checking the <u>Civil Aircraft Register</u> and for <u>ADs</u>)
- 2. Aircraft serial number
- 3. Total Time Airframe (TTAF)
- 4. Total time on the engine since major overhaul (SMOH)
- 5. Type of fuel used mogas, 100LL, Jet A, Jet B, other fuel
- 6. Years and hours on the constant speed prop or variable pitch (if installed overhaul is required every ten years or at engine overhaul)
- 7. Years on the fixed pitch prop since it was removed and inspected (required every five years)
- 8. Aircraft interior condition (usually expressed as a number <u>"out of ten"</u>)
- 9. Aircraft paint condition and colours (also usually expressed as a number <u>"out of ten"</u>)
- 10. Avionics installed
- 11. Has it ever been used as a trainer?
- 12. Any items that need maintenance attention
- 13. Outstanding <u>Airworthiness Directives (ADs)</u>
- 14. Location of aircraft
- 15. Stored inside or outside
- 16. Availability of the aircraft logs and documents for inspection
- 17. Availability of a suitable place for a pre-purchase inspection
- 18. Availability for a demonstration flight
- 19. Any <u>liens</u> on the aircraft
- 20. Seller's reason for selling



That last item is an interesting one. A significant number of used aircraft are sold each year in Canada because some expensive item has come up and the current owner cannot afford to get it fixed. This can be low engine cylinder compression, high oil consumption, weak or failing radios, overdue engine overhaul or a myriad of other reasons. Most owners will not tell you that there is something wrong with the aircraft; it is up to you to find that out, too.

Asking why they are selling the plane may get an interesting answer. Sometimes that answer will indicate that it is a divorce sale, that the owner lost their medical, or that they are buying a more capable aircraft. If they don't have a clear reason for selling that may be an indication that there is a mechanical problem to look for. That may be the case even if they have a good excuse for selling.

In the case of kit or plans built aircraft that are sold with very few hours on them since completion there may be another reason. Lots of these aircraft come up each year – often with less than 25 hours on them. The most common reasons for selling these types are:

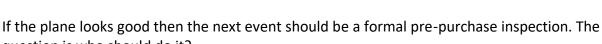
- The builder scared themselves on the early flights by building an aircraft that they didn't have the skills or currency to fly. This is common with Lancairs, RVs, Glasairs and other high performance airplanes. Keep in mind many builders don't fly much when they are building, so it may be a more of a pilot experience problem than a problem with the aircraft.
- The airplane didn't meet their expectations. This usually means that the empty weight was too high and hence the payload was too low, the cruise speed or rate of climb too low or something similar. Check your own test flight data from flying the individual aircraft against the manufacturer's claims to see what didn't measure up.
- The builder really just likes building rather than flying and is selling the plane to buy another one to build. Some people really do this! There are even some non-pilots who like building and selling airplanes just to build another one!

Out of Ten?

The scale of rating aircraft interiors and paint "out of ten" is a traditional (and not very well defined) system. Obviously different people can mean different things by "7/10". Regardless of what the seller rates the paint and interior form your own judgement when you see the plane.

Here is what people usually seem to mean for interior and exterior ratings:

10/10	Just like new
9/10	Almost new, maybe a just a little wear
8/10	Good to average condition - some small amount of wear
6/10	Fairly worn, getting close to needing repainting or refurbishing



If the aircraft is a certified or O-M aircraft then it should probably be an AME who does the prepurchase. The AME should be familiar with the type and have worked on them before. They should <u>not</u> be the AME who has been maintaining that airplane recently. If you get the current AME who works on that plane to inspect it they are really just inspecting their own work, so don't expect to find much out from them. The ideal candidate is an AME whom you know personally and trust. Be prepared to pay their travel expenses to get them to the airplane or alternatively have the airplane brought to them.

The pre-purchase inspection will cost a few hundred dollars in labour and will probably take at least a half a day to do. It is basically an annual inspection – without the snag rectification! What you want to ask the AME is "Tell me what is wrong with this plane and how much it will cost to fix it". Anything they find wrong should be noted and deducted from the purchase price. The best news that you can get is that the plane is irreparable junk – that pre-purchase inspection just saved you a great amount of money and frustration!

If you ask an AME to "tell you that it is a great aircraft" then most of them will tell you that it is a great aircraft. Make sure the AME knows that you want to really know the state of the aircraft and the costs involved fixing it.

Inspecting the Aircraft

question is who should do it?

In most cases you should have an airplane inspected twice. The first inspection should be by you and the second by someone who is qualified to do a detailed inspection.

You, as a prospective buyer, normally need to see the aircraft to make sure that it is worth spending more money and time on checking it out more carefully. Often a good look-over by the buyer, just a regular walk around, will reveal enough problems for you to walk away.

Be careful of photos – most aircraft look good if photographed from far enough away. Even appallingly poor paint can look good in photos! Photos from the seller are helpful, but they are not a substitute for actually seeing the aircraft.

Spend the time to look the plane over carefully, including inside the tailcone where corrosion often lurks (bring a flashlight!). This process is much easier without the owner looking over your

shoulder, but many owners will want to be there while you are looking their plane over.





For certified aircraft a pre-purchase inspection must include a paperwork and document inspection and check for Airworthiness Directives. Transport Canada has a web-based free <u>AD</u> <u>service</u> where you can research ADs for any certified aircraft. It is well worth checking to ensure that there are no expensive surprises.

All aircraft require a document check, which should include:

- 1. The *Journey Logbook* (ultralights do not need to have these)
- 2. The *Technical Record* (this is no longer required to be a green binder of books it can now be in any form, including electronic or a file folder). This is not required for ultralights, amateur-builts or O-M aircraft.
- 3. The *Certificate of Registration* (all aircraft including ultralights require this. The only exceptions are hang gliders and paragliders)
- The Certificate of Airworthiness (for certified aircraft) or Special Certificate of Airworthiness (for O-M, Amateur-builts and Limited category aircraft) <u>Note</u>: Ultralights do not have a C of A
- 5. A record of the last annual inspection (Basic ultralights do not need to have these. Advanced ultralights must have maintenance records showing that the maintenance schedule specified by the manufacturer has been adhered to)
- 6. *Pilot Operating Handbook* (legally required for certified aircraft some ultralights, O-M and amateur builts will have one too)
- 7. Current Weight and Balance Report (Basic Ultralights may not have one)

Note: Since 1999 there has been no requirement for a Radio Station Licence for canadian aircraft operated in Canada.

Most AMEs are not very conversant with ultralights or amateur builts and will often not be the best person to inspect them. In the case of these types of aircraft the best person to inspect them is probably another owner who has built one of the type that you are looking at. You can probably find no one more qualified to inspect it than that! If you don't know anyone who is familiar with the aircraft type, then check with the <u>Aircraft Type Club</u> if there is one. <u>COPA</u> <u>Flights</u> are a good source of finding current owners of types. Of course you can also consult the Transport Canada <u>Civil Aircraft Register</u> to find current owners near you or near the aircraft. Expect to pay them for their time as you would an AME.

For non-certified aircraft, the documents need to be inspected, too. Amateur-built and O-M aircraft can have all their records contained in their *Journey Logbooks*, which makes it easy to



refer to. Some owners still have separate *Journey and Technical Logbooks*, which is allowed, just not mandatory.

AULAs must have some type of maintenance record system, which you must be able to refer to. Many AULA owners keep standard aircraft *Journey Logbooks*.

BULAs are not required to have any records at all. Most BULA owners keep good records, however, often in a standard aircraft *Journey Logbook*. In the case of any BULA that has no records at all, it would be safest to assume that the plane needs a good annual inspection and an engine overhaul and should be priced accordingly.

If you are an AME or have experience building that non-certified type you can do your own prepurchase inspection. There is at least one good reason to have an independent person still do it, however. You may find that you are enthusiastic enough about the prospect of this airplane that your own feelings may cloud your ability to be objective. A second set of eyes may be a good investment.

What can you do if you locate the plane that you think you want, but it is 3000 miles away? This is a challenge, but not insurmountable. You may want to have the pre-purchase inspection done first, before you travel out there to see the plane. You can locate a local AME or aircraft type-expert through recommendations (not from the seller!) or through the nearest <u>COPA</u> <u>Flight</u>. The <u>Canadian Federation of AME Associations</u> or other provincial AME associations may be able to help you locate an AME in a specific part of the country too.

Don't ever skip the pre-purchase inspection – it can save you tens of thousands of dollars, if it saves you buying someone else's problems. There are people who buy aircraft "sight unseen", but you are really rolling the dice with that approach!

Fly Before You Buy

There is one step that you should consider mandatory, no matter what type of aircraft you are looking at – "Fly Before You Buy".

There are two reasons for flying the aircraft:

- 1. To ensure that you like that aircraft type and that it meets your needs, especially for handling qualities.
- 2. To ensure that that particular plane flies the way it should that it performs near the book specs and is rigged correctly.

The first type of flight can only be conducted by you as a prospective owner – as only you can tell whether you like the handling of this type of aircraft. If the aircraft is a certified aircraft and



you have flown the type and model before, you may decide that you don't need to test fly it for this reason.

The second type of test flight needs to be done on all aircraft. You may not even be the best person to test fly the plane. You may not have the experience or background to tell whether the plane is performing correctly and rigged right. If that is the case consider finding a pilot who is very familiar with the type to fly the plane and evaluate it for you.

In the case of non-certified aircraft, it is especially important to "fly before you buy" as individual aircraft can each fly very differently from others of the same type. The wing construction and rigging can be very different from others of the same type, or even from what the designer intended.

In some cases, it just isn't possible to fly the actual aircraft before you buy it. This is always the case when you are buying a wreck to rebuild or a kit. The best you can do in this case is to fly another one of the same type. It would be unfortunate to spend a lot of time rebuilding a plane to discover that you don't like the flying qualities. Of course, that is one reason why wrecks are cheaper to buy – you can't fly them – you get them "as is".

If the aircraft is airworthy but for some reason not available to fly before you buy it, be suspicious – the seller may have something to hide, such as poor engine performance or a twisted airframe, for example. Some buyers have been known to let the annual inspection or insurance policy lapse to preclude a prospective buyer from flying the airplane. They figure that knocking off the price of the annual is a lot cheaper than fixing whatever is wrong.

If you can't fly it before you buy it than that degree of uncertainty should be reflected as a discount in the price, perhaps even as low as scrap value. You are taking a risk!

How much is it worth?

Trying to figure out what an aircraft is worth is a challenging subject. Aircraft values can vary substantially with international economic conditions as well as the market demand for the aircraft type and the condition of the individual aircraft.

In general, you can get a good idea what an aircraft is currently worth by consulting COPA's <u>Canadian Plane Trade</u> classifieds, on paper or via the COPA website. Another good source of values for certified aircraft is the *Aviation BlueBook*. This is a CD-ROM based compilation published quarterly by <u>Primedia</u> in the USA. Since an annual subscription is US \$319.95 it is not usually practical for individual aircraft shoppers to purchase their own copy. Most aircraft brokers will have a copy of the *BlueBook*.

COPA offers its members access to <u>VRef</u> for aircraft evaluations.



The *BlueBook* gives the average price over the past six months for an aircraft of the same type, model, year, engine hours, with average interior, exterior and avionics. It is not the value for any specific individual aircraft. Aircraft selling prices can vary substantially depending on the individual aircraft's condition. The exact value of an individual aircraft can only be determined by a neutral third-party aircraft appraiser (someone who is not involved in the sale of the aircraft) and then only after an AME's pre-purchase inspection has determined the mechanical condition of the aircraft and the cost of rectifying any unserviceability. *BlueBook* values can be easily adjusted with estimates for all the items that affect the value of an aircraft including engine hours, interior, exterior and avionics. The *BlueBook* can't price an individual aircraft but it will tell you what a similar aircraft has sold for in the past six months.

The Aviation BlueBook only provides values for <u>certified aircraft</u> as individual ultralights and amateur-builts can be very different from each other and the numbers sold are too small to get reasonably accurate values for those types of aircraft. For determining the value of these categories of aircraft the best procedure is to check the classifieds and see what they are selling for or figure out what a kit, instruments, engine etc. cost and deduct some percentage for depreciation. The only major exception to this guidance is <u>Vans' Aircraft RV series</u>. Due to market demand, RVs typically sell for more than the cost of parts involved in building it, and this by as much as Cdn\$20-30,000.

The engine hours "since major" can be factored into any *BlueBook* value, based on the cost of the overhaul divided by the recommended Time Between Overhaul (TBO). The question sometimes gets raised of how to deal with an engine that is listed as "on condition". This is actually an old term, for private aircraft this really means that the engine is beyond the factory recommended TBO. There is no problem with doing this, but from an aircraft value point of view it means that the engine is "run-out" and needs an overhaul. Many owners will retort with, "compression is fine and it isn't burning any oil", but while that may be true, it isn't relevant to the value. If the engine is "on condition" then it is valued as if it is ready for overhaul now. Buyers of an aircraft with an "on condition" engine should have the money for an overhaul standing by – you may get another hundred hours or more out of the engine or you may have to send the engine in for overhaul next week.

A recent validation showed that the *Blue Book* values are very accurate for aircraft prices in the US. Other factors may be just starting to emerge that will affect prices in the near future.

Information on <u>financing</u>, <u>taxes</u> and <u>insurance</u> is contained in separate sections below.

Flying Junk

Beware of aircraft that need a lot of work – they can be worth very little, despite what the owner might say about it. Here is an example of just that:

• A fall 2019 *BlueBook* value of a 1967 Cessna 150 (average paint, interior and avionics



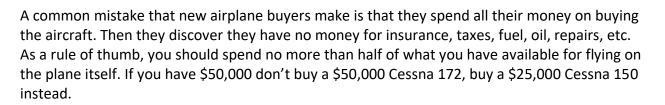
and 900 hours SMOH) in Canadian dollars is \$19,147

- The owner is asking \$30,000, of course!
- Except this aircraft really needs repainting. The cost of repainting is \$10,000; since an "average value" is based on average paint (half way from "new paint" to "time to repaint") you deduct half the cost of a paint job from the value of the aircraft. New value \$14,147.
- Except this aircraft really needs a new interior the seats are torn, side panels broken and the headliner is shot. Cost of a new interior is \$4000, so you deduct half of the cost for the value of the aircraft. New value \$12,147.
- Except that this aircraft's engine is over 1800 hrs SMOH (the recommended TBO), is "oncondition" and is therefore due for an engine overhaul. Deduct half the \$21,090 cost of an engine overhaul. Now the aircraft value is \$1602.
- Except that this aircraft has no radio or transponder in it; those were sold separately, leaving a hole in the panel. Those items would be part of "an average condition C-150". Because they are missing you have to subtract the whole cost of installing those. A navcomm and transponder will cost about \$7500 including installation. The new value of the aircraft is now below \$0 and is only worth "salvage value" and that is what you should offer for the aircraft.
- Undoubtedly the owner still thinks it is worth \$30,000, but it isn't.
- Don't pay too much for "Flying Junk" because the amount of money needed to bring it up to "average" condition will mean that you will never get your money back out of it when you sell it.
- If you paid the \$30,000 this owner thinks it is worth and then installed new radios, repainted the plane and overhauled the engine then you would have spent about \$70,000 on a plane that would be worth about \$35,000 today in that totally refurbished condition on the resale market.

If the owner insists it is worth far more than it really is, be prepared to walk away and look for another aircraft.

How much will it cost to own?

This is important because you don't want to buy an aircraft and then discover that you can't afford to fly it!



Ownership costs can be divided into "fixed" costs and "variable" costs.

The fixed costs are those that you have regardless of the number of hours you fly. These include:

- Financing (if applicable)
- Insurance
- Hangarage or tie down space
- Maintenance
- Depreciation (if applicable only newer aircraft depreciate older ones actually appreciate! See the article <u>Appreciating Depreciation</u>)
- c (\$68 per year starting in March 2009 and have not increased in 2014, if applicable ultralights, gliders and balloons are exempt, as are all aircraft under 1328 lbs gross weight) Nav Canada Customer Guide to <u>Charges</u>.

It is worth noting that there are no more Aircraft Radio Station License fees in Canada. COPA action had these fees eliminated in 1999.

The variable costs are those that you incur when you fly and are generally "per hour". These generally include:

- Fuel
- Oil
- Engine overhaul allowance
- Landing fees (if applicable)

<u>The COPA Guide to Estimating Aircraft Costs</u> is available on the COPA website, complete with instructions on how to use it. You will need MS Excel to make it work. It will enable you to fill in the blanks and the program will calculate for you how different decisions will affect your costs per year and per hour. The program even graphs those two outputs!

During the first year or two of ownership many new owners find that they have to spend more money than anticipated on upgrading equipment (usually avionics), replacing old equipment, buying covers and generally getting the aircraft to a state where they are comfortable and happy with it. Ensure that you make a good estimate of all the broken equipment and items that will need adding or replacing. Make sure that you account for this when you estimate the first year's maintenance costs. Even so you will probably under-estimate the costs for these



items as many unanticipated things will come up.

Aircraft Partnerships

These days many aircraft owners decide to get into partnerships. Sharing an aircraft makes good sense – most aircraft don't fly very often, so scheduling conflicts rarely arise. Having a partner or two or three allows you to reduce your purchase price per person along with your fixed costs. Generally, each person flying pays the variable costs for the time that they fly. A complete look at partnerships is included in the <u>Affordable Flying</u> articles at the end of this guide.

Two different sample partnership agreements are also included in the guide. <u>Partnership</u> <u>Agreement Sample #1</u> is one that COPA members have used for many years with good success. <u>Partnership Agreement Sample #2</u> is a newer style agreement that some members may find more to their tastes. Feel free to adopt the best of both for your own use!

Making an Offer to Purchase

Once you are happy with the aircraft that you have located, the results of the pre-purchase inspection and the asking price, you may be ready to make an offer to purchase the aircraft.

Some aircraft owners will want you to make an offer to purchase before you have a prepurchase inspection done. They just don't want an unfamiliar person taking the plane apart without at least an expression of interest in writing. If that is the case then you will want to make the offer conditional upon the success of the inspection.

You can make the offer conditional on some or all of the following factors, depending on your circumstances:

- The successful conduct of a title and lien search.
- The arrangement of <u>financing</u> of the aircraft (if required).
- The successful completion of a prepurchase inspection.
- That the aircraft is being sold as presented and that no equipment will be removed (you will want to specifically list loose equipment items that will be included, such as headsets, handheld GPS sets, aircraft covers, tow bar, tie down kit, chocks, etc)
- The purchase includes delivery of the aircraft to you (if applicable).
- That the deal will be closed when all of the above items are complied with.



You can use a form similar to the <u>Offer to Purchase Form</u> included in this publication for making a written offer.

Giving the Seller a Deposit

Once you have found the aircraft and make an offer there is generally a period of waiting caused by the buyer – to organize financing, conduct a title search and other administrative functions. The seller will generally not hold the aircraft for you (and not sell it to someone else) unless you give them a deposit.

The deposit is money given to the seller to show you are serious about the purchase and hold the aircraft for you. It will typically range from \$500 to 10% of the purchase price. <u>Always</u> get a receipt for the deposit.

The deposit is applied to the purchase price when you complete the sale. If, for some reason, the purchase falls through, the seller will normally refund your deposit. In some cases the seller may feel that they are entitled to keep the deposit so don't give a larger deposit than you are willing to lose. Going to court to get your deposit back will generally cost you more than the value of the deposit.

If you are uncomfortable with this arrangement you can have third party trusted by both parties hold the deposit. In Canada this would normally be a lawyer. More information can be found on this subject in the section on <u>escrow</u>.

Title Search and Liens

The aim of doing a title and lien search is to make sure that the person selling the aircraft actually owns it! There have been cases where someone has tried to sell a stolen aircraft, but the more usual case is that the person selling doesn't have a clear title and there is a lien against the aircraft. This is most likely because the aircraft owner has a loan outstanding and used the aircraft as collateral for the loan or an AME has placed a "mechanics' lien" against the plane for work done but not paid for.

In any case, if you buy a plane that has a lien against it, the plane can be seized to pay the debt. If you buy a plane with a lien against it, the lien is yours to pay, too. Under Canadian law you will be left with no plane and no means of getting your money back except suing the original seller. It is better to ensure that the plane is "free and clear" to be sold beforehand!

For some reason the presence of liens seems to be something that aircraft sellers are most dishonest about. Recent cases have shown that some sellers will claim that there are no liens on an aircraft even when they know that there are outstanding liens. It is well worth checking yourself, regardless of what the seller says. "Trust but verify" is a good maxim here. If a seller is dishonest about liens, they may well be dishonest about other aspects of the aircraft as well.



Lien checks are only usually necessary when buying a used aircraft. They are not normally required when buying a new aircraft or a new aircraft kit from the manufacturer. If you buy a kit from a potential builder, who bought it from the factory and never built it, you may want to handle it as if it were a used aircraft, just to be safe. The kit may have been used as collateral for a loan for the purchase of the kit itself!

The USA has a wonderful system for registering liens against aircraft. The FAA registers all liens and titles at FAA HQ in Oklahoma City. If it isn't registered there then it isn't a legal lien. You will have to hire a title search service to do a title search and lien check for you for US aircraft. There are several companies that provide this service, including the <u>AOPA Title and Escrow</u> <u>Services Inc</u>. A typical charge for a simple search and written report is about US\$80 for AOPA members and US\$160 non-member. If you are buying an aircraft in the USA, this task will be a simple one!

Here in Canada, pilots wish that we had something as simple as the US system of title and liens searches. In Canada aircraft titles are considered part of "personal property" and as such fall under provincial responsibilities. That means that if you want to do a complete search in Canada you need to check all 13 provinces and territories. There are some title search companies, but most operate in only one province or region of the country. You can find them on the province government websites listed below, where applicable.

Because of the requirements to check each province or territory separately most buyers don't check them all. Most buyers just check the provinces where the aircraft has been based in recent years. You do take your chances with this method – but the choice is yours how many provinces to check.

The actual procedure in Canada isn't too complex, but it can be a bit time consuming. Each province has its own system – you can start with a visit to the provincial government website or a phone call and the respective provincial department can guide you from there.

Alberta

This province privatized their title searches in 1996. <u>http://www.servicealberta.ca/8.cfm</u> More general information on lien searches in Alberta can be found at <u>http://governmentservices.gov.ab.ca/index.cfm?fuseaction=section:personalproperty</u>

British Columbia

This province uses an Internet based system found at http://www.bcregistryservices.gov.bc.ca/

Manitoba

This province uses an Internet based system found at



New Brunswick

This province uses an Internet based system found at http://www.acol.ca/Services/PPR/NB/menu.html

Newfoundland & Labrador

This province uses an Internet based system found at <u>http://www.acol.ca/Services/PPR/NF/menu.html</u>

Nova Scotia

This province uses an Internet based system found at <u>http://www.acol.ca/Services/PPR/NS/menu.html</u>

Northwest Territories

This territory uses an Internet based system found at http://www.acol.ca/Services/PPR/NT/menu.html

Nunavut Territory

This territory uses an Internet based system found at <u>http://www.acol.ca/Services/PPR/NU/menu.html</u>

Ontario

This province uses an Internet based system found at http://www.ontario.ca/en/services_for_business/access_now/stel01_086165. Lien Searches may also be done over the telephone by calling (416) 325-8847 or toll-free in Ontario at 1-800-267-8847. Please have your credit card number ready.

PEI

This province uses an Internet based system found at http://www.acol.ca/Services/PPR/PE/menu.html

Quebec

Contact 800-465-4949. This province also has an Internet based service in French only at <u>http://www4.gouv.qc.ca/EN/Portail/Citoyens/Evenements/deces/Pages/consulter-registre-droits-personnels.aspx#</u> Note you will need the owner's name and date-of-birth to conduct a search in Quebec. Fee is \$8.00.

Saskatchewan

This province uses an Internet based system found at <u>http://www.isc.ca/SPPR/Pages/default.aspx</u>



Yukon Territory

For information call (867) 667-5225. You will need a form that can be found at <u>https://ppsr.gov.yk.ca/pls/apex32p/f?p=109:1:1776415779813098</u> and fax it to 867-393-6251 (Attention: Val Lewis) along with a fee of \$7.50 for a non-certified copy or \$15.00 for a certified copy.

Some Details about Foreign Aircraft

In general, all the usual items apply when buying an aircraft from a foreign country – you still need a pre-purchase inspection and a lien search, etc. There are some special items to keep in mind when buying an aircraft from outside Canada, particularly from the USA.

One of the things that will happen when you import any aircraft (except ultralights) into Canada is that it will be subject to an inspection. For certified aircraft, aside from the usual airworthiness items, the inspector will be looking for STC and FAA Form 337 modifications. US Supplementary Type Certified modifications (STC) are generally acceptable in Canada. The other way that US certified aircraft can be modified is with a field approval (Form 337). These are not acceptable in Canada and the modification must be removed from the aircraft or put through the Canadian LSTC (Limited STC) process. The LSTC process is time consuming and expensive and will involve engineering documentation requirements and test flying by Transport Canada. It is best to make sure that your soon-to-be-ex-US aircraft has no 337 mods that cannot be easily removed. If you are unsure, contact your regional <u>Transport Canada</u> <u>Airworthiness Certification office</u>.

One of the most common items that have been installed on US aircraft under a Form 337 recently are some IFR certified panel-mounted GPS sets. These individual installations may or may not be acceptable in Canada. When the aircraft gets to Canada the installation will have to be inspected and will need an LSTC signed off for it, including a test flight. Many of these aircraft with Form 337 GPS sets that have been imported have been found to be improperly installed and wired and require removal and reinstallation.

Some owners spend a lot of time and trouble to get a *Certificate of Airworthiness for Export* from the foreign Civil Aviation Authority prior to exporting an aircraft to Canada. Recent information from TC indicates that getting this document is a waste of time and money these days. Long ago you could not import a certified aircraft from another country into Canada without this document. Back then the *Certificate of Airworthiness for Export* proved that the aircraft conformed to its "type definition" and could have saved having a new inspection in Canada to confirm that. All that has changed. Because foreign aircraft may have field mods, "owner-made parts" and other non-internationally-accepted changes, the *Certificate of Airworthiness for Export* doesn't tell TC anything about its acceptability in Canada. As a result, the aircraft will still need a complete conformity inspection anyway before it receives its Canadian C of A, so the *Certificate of Airworthiness for Export* doesn't save any time or money. An aircraft can be imported into Canada with or without it.

It should be noted that in the case of certified aircraft exported from the USA, the FAA requires a *Certificate of Airworthiness for Export* to be obtained. This is unfortunate, as this document then doesn't do you any good on import into Canada, as it isn't accepted here and just costs time and money to obtain.

To register the aircraft in Canada you will need to get a <u>Bill of Sale</u> for the aircraft (just like in Canada). You will also need to have the aircraft removed from the foreign registry. This is because ICAO rules state that an aircraft cannot be registered in more than one country at a time. You have to provide proof that it isn't registered in the exporting country before it can be registered in Canada. When dealing with the FAA you can provide them with a copy of the Bill of Sale and they will de-register the aircraft. They will send you a letter and you will need that, along with another copy of the Bill of Sale, to register the aircraft in Canada. Complete details are on the <u>FAA website</u>.

The US owner can alternatively have the aircraft de-registered before it leaves their custody, but make sure that the aircraft doesn't fly unregistered! Note that this can be a dangerous option as once the aircraft is deregistered with the FAA, it might prove very difficult to register the aircraft in Canada and you would end up with an unregistered aircraft on the ground, in another country for an extended period of time. The best approach by far is to negotiate with the US seller to deliver the aircraft to Canada, ideally to the workplace of the AME who will do the import inspection. Once the aircraft is on site, the necessary paperwork can be completed between buyer and seller, the seller heads back home, and you proceed with your Canadian registration. This procedure will add to your overall cost but could save you a lot of headaches and money in the long run.

On the subject of ferrying the aircraft home - the person who flies the aircraft will have to have an appropriate pilot license. That means that if the aircraft is US registered you will need an FAA Pilot Certificate to fly it in US airspace. Canadians can get one of these by presenting their Private Pilot or higher license, (Recreational Pilot Permits don't work), medical certificate and logbook to any FAA <u>Flight Standards District Office</u> (FSDO). You will have to fill out a Pilot Certificate application form and a security background check form. The security check will delay the issue of the FAA certificate by some 30-60 days, so plan ahead for the ferry trip! There is currently no charge by the FAA for this issuance.

When bringing the aircraft across the border you will be required to declare the aircraft to Canada Customs and pay GST and PST or HST (if applicable). There are no customs charges or duty on aircraft or aircraft parts. See the <u>Taxes</u> section in this guide for more information.

Once the US registered aircraft arrives at its final destination in Canada it is grounded until it has its Canadian C of A and C of R, along with its registration letters actually affixed to it. If the paperwork runs smoothly the aircraft should be only grounded a week or two, a rare occasion really.



Foreign amateur builts can be imported into Canada provided that they meet the requirements of <u>CAR STD 507 Appendix C</u> and have flown 100 hours prior to export. The aircraft will still require an inspection when it arrives in Canada, and is not eligible for a *Certificate of Airworthiness for Export*. More details are available in the <u>COPA Guide to Amateur-Builts</u>

Foreign ultralights and homebuilts can be imported easily and registered as Canadian Basic Ultralights, provided that they meet the definition of an ultralight in Canada – one or two seats, 45 mph maximum stall speed and 1200 lbs maximum gross weight plus a minimum useful load requirement. The complete details are in the Transport Canada <u>Ultralight Transition Strategy</u>.

Foreign aircraft can only be imported and registered as Advanced Ultralights if the type has a filed *Declaration of Compliance,* is on the <u>Listing of Models Eligible to be Registered as</u> <u>Advanced Ultra-Light Aeroplanes (AULA</u>) and the manufacturer is willing to issue a Statement of Conformity for the individual aircraft to allow it to be registered in this category. Some manufacturers will issue an S of C for a used aircraft and others won't – so check beforehand with the actual manufacturer.

Importing aircraft for the Owner Maintenance category involves the same process as aircraft in the certified category. They become O-M aircraft at the time of registration in Canada or at a later point if desired. For more information on this category see <u>The COPA Guide to the Owner</u> <u>Maintenance Category</u>.

Ex-Military aircraft and other aircraft to be registered under the *Special Certificate of Airworthiness – Limited* program follow a similar path for import as certified aircraft do. See <u>CAR STD 507 Appendix F</u> for more details on this category as well as the <u>COPA Guide to the</u> <u>Limited Class.</u>

Keeping It Foreign Registered?

Quite a number of people who buy airplanes in foreign countries, usually the USA, have thoughts of just leaving it foreign registered. They see this as a way to get cheaper insurance, avoid paying taxes or even to avoid the importation inspection and paperwork costs. Transport Canada, Canada Revenue Agency and most of the foreign regulatory bodies, like the FAA, have made sure that it isn't that easy, possible, cheap, or even legal in most cases.

The first barrier to keeping your new aircraft in its foreign registry is that most foreign governments don't allow non-citizens or non-permanent residents to own aircraft registered in their country. The USA, for instance, requires owners to be US citizens or permanent residents or US corporations (with a majority US ownership or board of directors – no dummy companies allowed!). The FAA does allow foreign owned corporations to own US registered aircraft, but the company has to provide:



- A certified copy of its certificate of incorporation
- A certification that it is lawfully qualified to do business in one or more States
- A certification that the aircraft will be based and primarily used in the United States and
- The location in the USA where the records will be maintained and can be inspected.

Note: For the purpose of registration, an aircraft is "based and primarily used in the United States" if the flight hours accumulated within the United States amount to at least 60 percent of the total flight hours of the aircraft during each 6-calendar month period. See <u>FAR 47.9</u> for more information.

The second barrier is that Transport Canada <u>CARs 202.42</u> and <u>202.43</u> regulate the period of time that a foreign aircraft can be operated in Canada. This is limited to 90 days in any 12-month period unless the owner is not a Canadian citizen and is a permanent resident of the state of registry or a foreign company. If it is a foreign company then the aircraft has to either be operating under a commercial operating certificate or in a situation where it wouldn't need a private operator certificate if it were a Canadian aircraft. That means that even foreign citizens who are living in Canada as permanent residents must import the aircraft and have it Canadian registered.

A third barrier is insurance. Most US insurance companies won't insure US-registered aircraft that aren't physically based in the USA and don't meet the requirements of <u>FAR 47</u>. Canadian insurance companies generally will not insure foreign registered aircraft. There may be no insurance available.

A fourth barrier is taxes. A Canadian citizen or resident crossing the border in a US registered aircraft will be required to pay the GST and possibly the PST (or HST) at the border. To avoid paying the taxes you may have to prove that you don't own the aircraft, or even that you don't own it indirectly, through a US company or trust. The Canada Border Services Agency is pretty sharp when it comes to catching Canadians flying foreign aircraft across the border.

Every year a few Canadians get caught with US registered aircraft, which they own in Canada. In most cases the foreign registry is invalid because the person cannot legally own the foreign registered aircraft, they have no valid insurance (which is required by <u>CAR 606.02</u>) and they have also violated the ownership and time-in-country requirements of <u>CAR 202.42</u> as well. These aircraft are very easy to spot by their foreign markings and get noticed by Transport Canada. The maximum fine for violating either CAR 202.42 or CAR 606.02 is \$5000 for individuals and \$25,000 for companies. It is much easier to import the aircraft and register it in Canada than have your aircraft seized or face the fines.

Taking Delivery

So the sale is complete – all that remains is to go get the aircraft and pay the seller. There are several ways to do this.



The traditional method is for the buyer to travel to where the airplane is, hand a certified cheque or bank draft to the seller who hands over the keys at the same time. Then you get to fly your new aircraft home. This still works well, but may be impractical in some circumstances. It may be better for the seller to deliver the aircraft to you. This is fine, but do pay reasonable travel expenses – both ways!

Many people have been taken advantage of, or suffered losses when buying aircraft kits. What often happens is you decide on a kit and phone to order it. The manufacturer requires a deposit to make up the kit and box it. They will want the balance due before shipment. It is perfect if you can drive down with a van or trailer and get the kit from the factory, but in most cases, you have to have the kit shipped. You send the money and the kit never appears, or it shows up 50% complete, with the balance on back order. Then the company goes bankrupt, the owner dies or disappears or something similar. You are left with no money, a partial kit and now must either give up or make the parts for the rest of the kit, if possible.

A possibility to solve this situation beforehand is to have the money held in escrow by a mutually trusted third party, usually a lawyer. There is more information on this in the next section.

Escrow

Using an escrow service can be useful in circumstances where you are buying a complete aircraft and can't trade the cheque for the keys directly. It is also very useful when you are buying a wreck or an aircraft kit and the seller wants the money before the remains or kit is shipped.

In Canada most lawyers will provide an escrow service and this should be acceptable to both parties. The way it works is simple. Once you have agreed to a price, you pay the money to the lawyer and they hold it in trust. They will inform the buyer in writing that the amount is there and it will be released once the goods are received. The aircraft or kit is then sent and received, you confirm this to the lawyer and they pay the seller. If the purchase is in the USA there are escrow services that specialize in this type of work, or you can use a Canadian lawyer. Naturally there is a fee for this service, but in cases where there is a lot of money involved it may well protect both parties. The buyer normally pays for the escrow service.

If an airplane seller or kit manufacturer will not agree to a sale where the money is held in escrow then you should give careful thought as to why that would be. It is a big danger sign that things may not be what they seem in the transaction!



Completing the Sale

The sale is completed when the seller has the money and a copy of the Bill of Sale and the new owner has the aircraft, the paperwork and a copy of the Bill of Sale.

If the aircraft is a Canadian registered aircraft, the seller must mail in the card on the C of R within seven days. This cancels the registration. The new owner then has to register the aircraft. To do this, submit a copy of the Bill of Sale, the completed application form on the back of the C of R and the fee of \$110 to your <u>Transport Canada Regional General Aviation office</u>. A new C of R will be issued and, in the meantime, the existing "pink copy" is good to fly the aircraft for up to 90 days. If you don't submit the application to register the aircraft in time to get the new C of R before the temporary "pink copy" expires then the aircraft is grounded until the new C of R arrives.

It is worth noting that the new owner isn't required to register the aircraft within any particular period of time, but it can't be flown beyond the validity of the "pink copy" of 90 days. You may want to wait if you are commencing a re-build or other major work on the newly purchased aircraft and aren't sure when it will be completed.

It is worth noting that a US law <u>Title 19 Customs Duties, Chapter 1, Part 122, Subpart C Section</u> <u>122.27</u> will not allow an aircraft to enter US airspace on a "pink" temporary C of R – so count on flying the plane home through Canada. US Customs do regularly check entering aircraft for the C of R for this reason.

It is also important to note that Transport Canada will not register the aircraft unless the person who sold it is the person to whom it was last registered, unless you can provide previous Bills of Sale back to the last TC-registered owner. These have to be proper "Bills of Sale" including the buyer and seller's names and a description of the aircraft and not just simple receipts.

This requirement does protect against registering stolen aircraft, but it can be a problem in some circumstances. There have been cases where the new owner has had to go and try to find previous owners to get a Bill of Sale for a "years-ago sale" because the most-recent owner never registered the aircraft, only to find that the previous owner is dead. That makes the process slower than it could be! Save yourself the trouble and ensure that the person who is selling the aircraft is the current registered owner on the Transport Canada <u>Civil Aircraft</u> <u>Register</u> or can produce all the Bills of Sale back to the last registered owner. Make sure you get copies of them!

Used AULAs must have a <u>Fit for Flight Form (FFFF)</u> completed by the previous owner or else they cannot be re-registered in the name of the new owner as an AULA. See the <u>Ultra-light</u> <u>Transition Strategy</u> for more details on this requirement.



Taxes

Taxes are not everyone's favourite subject, but they are unavoidable.

Here are some points to keep in mind:

- New aircraft and new aircraft kits are subject to GST and PST (where applicable) or HST (in Nova Scotia, New Brunswick and Newfoundland and Labrador) at point of purchase within Canada.
- PST and GST or HST are payable at the border for new or used imported aircraft and kits.
- Kits shipped within Canada, but out-of-province will not be charged PST when shipped, but the owner will be usually be sent a bill for PST (except in Alberta) or HST when the aircraft is completed and registered.
- When you import a complete aircraft or a kit, Canada Customs will collect the GST/HST and the PST at the border – so be prepared to pay it then. Ensure you get a receipt for the taxes paid because when you register the plane in Canada the province will probably send you that letter demanding you pay the PST or HST. A copy of your Canada Customs receipt will prove that you have already paid the taxes.
- Used aircraft, purchased within Canada, are subject to GST only if you buy the aircraft from a GST registrant. This means from an aircraft broker or from a company that is a GST registrant. Private sales from one individual to another are not subject to GST.
- Private sales within Canada are usually subject to PST, except in Alberta, of course, which has no PST. Most provinces charge tax each time a used aircraft is sold! They are permitted under law to do this, although it means that an old aircraft may have had a lot of PST/HST paid on it over the years.
- Nova Scotia, New Brunswick and Newfoundland and Labrador all collect HST on all aircraft registered to owners in their provinces. That is a 15% hit that owners in other parts of the country don't have to face, but it is difficult to avoid. If the aircraft is registered to a company that is flying the aircraft for business use it may be possible to claim the HST back, but check with a tax specialist for more information on that before you finalize the deal. Buying a used airplane is more expensive when you live in an HST province, and as of 1 July 2010, the tax burden jumped for Ontario from 8% to 13%.
- and from 7% to 12% in British Columbia



• versus, for example, 5% in Saskatchewan or zero in Alberta where HST does not apply.

Because the provinces have the legal right to collect these taxes COPA has been focusing our efforts on letting COPA members know that they are likely to get a provincial tax bill when they buy a used airplane in Canada (except Alberta) and encourage them to ensure that they are prepared for it. Otherwise it can be a very unpleasant surprise.

Do note that if you import an aircraft, new, used or in kit form and do not declare it at the border when you are asked if you have "anything to declare" that is called "smuggling". If you are lucky, when they catch you, you will just have to pay the taxes on it and a fine of 25% of the aircraft's value. If they feel that you acted maliciously then you could be in for some extensive time in jail and/or have the aircraft seized. Be smart when you import an aircraft – when Canada Customs asks if you have anything to declare, tell them "yes, this aircraft" and then pay the taxes on it. Smuggling aircraft is not a good way to save money.

Usually when you register the aircraft the provincial government searches the Transport Canada Civil Aircraft Register and sees that you have bought a plane. Next, they mail you a letter asking you to send in the PST that you owe. They don't know what you paid for the aircraft unless they request a copy of the Bill of Sale from Transport Canada, a procedure that is not normally done. If you send them the correct amount of money, they will normally be happy. If you claim that the aircraft cost "one dollar" expect to be the subject of a complete tax investigation. If you do not provide the province with a reasonable figure for what you paid, most provinces will send you a bill for what they estimate the aircraft is worth. History has shown that they often grossly overestimate the value of aircraft. Therefore, it is better if you provide them with an accurate figure to start with. Trying to cheat on taxes is illegal and can land you in jail if you are particularly imprudent! If the aircraft was a gift or had the PST previously paid by the present owner at the border, you will have to prove that fact to the province to have them drop the claim for PST.

Some COPA members have questioned whether a province can charge taxes on an aircraft since aeronautics come under federal jurisdiction in Canada. While "regulating aeronautics" is indeed under federal jurisdiction, the charging of taxes on aircraft by provinces is legal as does not interfere with the federal prerogative to regulate aeronautics.

Capital Gains Tax affects aircraft sellers, but it is also worth planning for when you buy a used airplane, too. The Capital Gains Tax was changed in Canada in October 2000 and has implications for COPA Members selling an aircraft that have increased in value. The Capital Gains Tax formerly carried a lifetime exemption of \$100,000. Today it has been changed so that you pay income tax on 50% of the amount of the gain.

Consider the example of the person who bought a brand new Cessna 182 in 1976. That aircraft would have cost about Cdn\$42,000 back then. In 2006 that same aircraft, now 28 years old, was worth about Cdn\$103,000. When sold, the Capital Gain would be \$61,000. If you had sold it under the previous tax rules the Capital Gains Tax would have been nil. Under the new rules

you have to pay income tax on half the gain, which would be \$30,500. You can deduct any capital improvements made to the aircraft that increased its value while you had it. For instance, a new suite of radios and an engine overhaul might increase an aircraft's value by \$45,000. If you then sold it for \$45,000 more than you paid for it there would be no capital gain. It is important to note that only capital improvements that increase that value of the aircraft count – routine maintenance items, such as annual inspections, cannot be added to the value as capital improvements.

Anyone considering selling an airplane that is now worth more than they paid should check the <u>Canada Revenue Agency website Capital Gains section</u> or talk to a tax expert to ensure that they get all the facts and don't get hit with unexpected Capital Gains Taxes.

Here is a quick summary of tax issues when buying an aircraft:

Buying an aircraft from:	PST	GST	HST (NS, NL and NB only)
	Maa	Nia	Vez
a private individual	Yes	No	Yes
a GST registered business	Yes	Yes	Yes
a foreign country	Yes	Yes	Yes

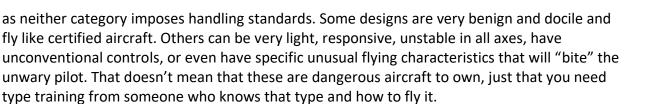
Aircraft Type Training

When do you need aircraft type training? That is easy – you almost always need some aircraft type training! Your insurance company may even require you to have certain training or "time on type" before they will insure your new plane at all.

If the aircraft you are buying is "high performance" you will need an individual aircraft high performance type rating. High performance means an airplane "that is specified in the minimum flight crew document as requiring only one pilot and that has a maximum speed (V_{ne}) of 250 KIAS or greater or a stall speed (V_{so}) of 80 KIAS or greater, or an amateur-built airplane that has a wing loading greater than 13.3 lbs per square foot without flaps or 20.4 lbs per square foot with flaps". The ratings required are type-specific and not a blanket "all high-performance aircraft" ratings. The requirements are very simple and can be found in <u>CAR 421.40</u>.

Aside from those high-performance aircraft, it is prudent to get a checkout unless it is an aircraft type that you are current on. For all other types, find an appropriate pilot to check you out to the point where you feel comfortable flying the aircraft. Spend some time studying the *Pilot's Operating Handbook* before your checkout so you will make the best use of your airtime. In many cases the seller will include some flying time with the sale to get you on your way safely.

Be especially careful with non-certified aircraft, particularly ultralights and amateur builts. These aircraft may not be designed to fly with "certified-aircraft-like" handling characteristics,



A word to pilots trained on certified aircraft who are considering buying an ultralight – you very definitely need type training! This is an area that causes many accidents each year. Just because the aircraft is smaller and lighter than the one you trained on doesn't mean that you can hop in it and go. Many ultralights have unusual flight or handling characteristics. Some are two-axis control or weight-shift control. Many ultralights are "high-drag" airplanes, which means that they have to be landed right the first time. Flare high and you will come to a quick stop at six feet off the runway. Save yourself some landing gear repairs – get a checkout, no matter how much certified aircraft time you have!

Insurance

Insurance can be an important consideration when buying an aircraft. If you are not in a partnership or getting a loan to pay for the plane, you may have a choice how much you insure the plane beyond the mandatory third-party liability insurance. If you have a partner or a loan then you may need to have full hull insurance. It is worth a call to an insurance broker to make sure that you will be able to get the insurance you need, at an affordable price.

Of course, one source of insurance you should consider is <u>COPA's own VIP Aviation Insurance</u> <u>Program</u>, administered by The Magnes Group Inc. The VIP Bronze Plan is designed for borrowers and renters of aircraft they do not own. The VIP Silver Plan is designed for COPA members who prefer to purchase Not In Motion and/or Liability Only. The VIP Gold Plan provides full insurance, including in-flight hull and liability insurance.

When you are just starting out building a kit aircraft you should check to see that the insurance you want will be available when you are finished building. One problem here is that insurance availability can change in time. It is possible that when you buy your kit that your broker confirms that getting insurance will be no problem. Then, one, two, five or ten years later when the aircraft is ready to fly the insurance market has changed or that particular kit plane has developed a poor accident record and in-motion hull insurance coverage is no longer available. There is no easy solution to this problem except to say that you may need to be prepared to "self-insure" the in-motion hull coverage. Liability and not-in-motion hull coverage is available under the COPA Silver Plan.

As an aircraft builder, you may want to consider "Work in Progress" insurance under the VIP Silver Plan. It covers the value of the aircraft and parts that you have while you build. This can be important as most homeowners' policies specifically exclude aircraft. That means if your home burns down the home and furniture may be covered but the plane won't be if it



happened to be in the garage. "Work in progress" insurance is also available from the Magnes Group Insurance under the <u>COPA VIP Aviation Insurance Program</u>.

Once you are ready to fly your new aircraft you will want to make sure that you have insurance in place! There is more background information about what aviation insurance is all about in Herb Cunningham's article <u>Understanding Aviation Insurance</u>.

Aircraft Financing

Until recently, specialized aircraft financing has been difficult to find in Canada. American pilots have several programs to choose from, but with Canadian finance laws these programs cannot write loans in Canada, unfortunately.

The good news is that Canadians now have dedicated sources of financing available!

There is:

Travelers Aircraft Finance is a division of Travelers Financial Corporation and provides financing to the General Aviation Sector in Canada, specializing in single purpose funding for certified new or used aircraft, generally for personal use, including single or multiple engine, turbine or piston, fixed or rotary winged aircraft. Travelers has earned its reputation for professionalism and a high caliber of support and together with the Travelers team, Travelers Aircraft Finance is positioned to deliver flexible, transparent funding programs to enhance and promote the passion for small aircraft ownership and flight in Canada. For more information please visit www.travelersfinancial.com or contact John Mealey at jmealey@travelersfinancial.com or by phone at 416 706 4331.

LiftCapital Corporation. LCC Aircraft Finance is a Canadian owned and operated finance company with many years experience in aircraft financing. LCC is <u>selectively</u> considering financing for new and used fixed and rotary wing aircraft for personal or commercial use for any amounts greater than \$75,000. LiftCapital Corporation, Valhalla Executive Suites, 300 The East Mall, Suite 401, Toronto, Ontario M9B 6B7 416-621-5522 ext 229, tollfree 800-530-0225, Fax 416-621-0522 <u>www.liftcapital.ca</u> <u>dmckenzie@liftcapital.ca</u>

Of course you also have the option of working with your regular bank or credit union for a loan. The most common methods here are:

- 1. Second mortgage (most banks are very keen to lend you money against the equity in your home, even for airplanes)
- 2. Personal loan



3. Line of Credit

Talk to your favorite loans officer at your bank or credit union for more information about getting a loan to buy an aircraft.

Aircraft Brokers & Dealers

Aircraft brokers and dealers are professional sales people who can do most of the work of finding and assessing a used aircraft for you. They can be a great resource in finding your dream plane, particularly if you don't have the time or inclination to spend a lot of time looking for one yourself.

For more information on the services that they can offer, have a look at Garth Wallace's article *What You Need to Know about Aircraft Brokers and Dealers*.

Useful Resources

There are many great sources of information on buying an aircraft, particularly on the Internet. Here are some you may want to have a look at:

Canadian Owners and Pilots Association website <u>www.copanational.org</u>

Transport Canada Civil Aircraft Register <u>http://wwwapps.tc.gc.ca/saf-sec-sur/2/ccarcs-riacc/RchSimp.aspx</u>

Transport Canada Canadian Aviation Regulations (CARs) <u>http://laws-lois.justice.gc.ca/eng/regulations/SOR-96-433/</u>

Transport Canada's "How do I?" series of online pamphlets that tell you how to register all kinds of different aircraft: <u>http://www.tc.gc.ca/eng/civilaviation/standards/general-ccarcs-menu.htm</u>

Transport Canada on-line Airworthiness Directives (ADs) <u>http://wwwapps3.tc.gc.ca/Saf-Sec-Sur/2/CAWIS-SWIMN/logon-cs0101.asp?lang=E</u>

Transport Canada Amateur Built aircraft exemption to CAR STD 507 Appendix C http://www.tc.gc.ca/civilaviation/regserv/affairs/exemptions/docs/en/1963.htm

Transport Canada Limited Category (including warbirds) exemption to CAR STD 507 Appendix F <u>http://www.tc.gc.ca/civilaviation/regserv/affairs/exemptions/docs/en/2108.htm</u>



Aircraft Type Clubs

Aircraft type clubs can provide a wealth of information on specific aircraft types and variants. There are literally hundreds of these clubs around the world providing services to many, if not most, aircraft types that have been produced in any significant numbers. There are type clubs for certified aircraft, of course, but there are also ones for amateur-builts, ultralights and warbirds.

Type clubs vary a lot in the services they offer and how they work. Some are simply volunteer clubs run by one enthusiast, using a free web service to provide a website. These often have minimal publications or services. On the other end of the scale some of the largest types clubs have a fulltime staff and offer a full range of services.

Here are services that some type clubs offer:

- A magazine with aircraft type-related information, news and events
- A website, often with type-specific buyers checklists
- Technical support from aircraft type experts
- Buyers' guides
- Conventions and fly-ins
- Lists of ADs that apply
- Lists of STCs available
- Type specific classified ads (often on-line)
- Background and aircraft type history information
- Maintenance tips publications
- Operating tips information
- Maintenance and aircraft systems courses
- Aircraft type conversion training programs
- Aircraft type specific insurance (often available in the USA only!)
- Formation flying training
- Scholarships
- Many other possible services

In some cases, with popular designs you may find that there are competing type clubs that both offer services for the same aircraft type or types. In those cases, you have the choice of clubs, or you can join them all!

COPA supports aircraft type clubs – they serve a great need in the aviation world, providing type-specific technical information that is not provided by anyone else. Consider joining and supporting the club for the type of aircraft that you buy – most of them are well worthwhile.

What if you check and discover that there is no type club for your aircraft type? Well then consider starting one. With free web services on which to post a website, it can be done at no

cost. If nothing else you will meet many more fans of the aircraft type you own and from around the world, too!

Aircraft Purchase Checklist

Here is a checklist that brings together all the things that you may want to consider in buying a used aircraft in Canada. For purchase of a kit or a foreign aircraft you will need to add a few items to this list, as required.

- 1. Decide what category and type of aircraft meets your needs
- 2. Determine if you afford to buy and run the aircraft.
- 3. Ensure you qualify to own a Canadian aircraft
- 4. Locate the individual aircraft that you wish to purchase
- 5. Contact the seller for initial information
- 6. Arrange to see the aircraft, if possible
- 7. Fly the aircraft!
- 8. Have a pre-purchase inspection done on the aircraft
- 9. Inspect the aircraft documents including:
 - a. The Journey Logbook
 - b. The Technical Record
 - c. The Certificate of Registration
 - d. The Certificate of Airworthiness or Special Certificate of Airworthiness
 - e. The record of the last annual inspection
 - f. Pilot Operating Handbook (if applicable)
 - g. Current Weight and Balance Report
 - h. Airworthiness Directives complied with (if applicable)
- 10. Negotiate a price
- 11. Make an offer to purchase
- 12. Give the seller a deposit.
- 13. Arrange financing (if required)
- 14. Conduct a title and lien search
- 15. Use an escrow service to complete the transfer of funds (if required)
- 16. Complete the sale, by paying the seller and receiving the keys and any loose equipment included in the sale.
- 17. The seller signs at least three copies of the Bill of Sale:
 - a. One copy to the seller
 - b. One copy to the buyer
 - c. One copy for Transport Canada
- 18. The seller sends in the C of R card to cancel the registration.
- 19. The buyer retains the temporary C of R and completes the paperwork to apply for a new C of R with the Transport Canada Regional office. The buyer will submit:
 - a. A copy of the Bill of Sale



- b. The completed Transport Canada form Registration 26-0478 for a new *Certificate* of *Registration*
- c. A Fit for Flight Form (FFFF) if the aircraft is an Advanced Ultralight
- d. Pay the fee for a new C of R of \$110
- 20. For complete information on this procedure see the Transport Canada website: <u>http://www.tc.gc.ca/eng/civilaviation/standards/general-ccarcs-reregister-409.htm</u>
- 21. And finally:
 - a. Conduct aircraft type training as needed.
 - b. Fly your aircraft home and enjoy the adventure that is: owning your own aircraft.

Part II - Articles on Buying an Aircraft

These articles were first printed in COPA's newspaper, *COPA Flight* and other COPA publications. They contain lots of first-hand advice on buying an aircraft.

Buying Your First Aircraft? Be Patient!

By Darin and Lisa Graham (published in COPA Flight – August 2001)

In the spring of 2000 we both completed our Private Pilot Licenses and started to strongly consider buying our own plane. As new pilots looking for our first aircraft it seemed like a daunting task. We wanted to ensure that we made the right choices so that we could purchase something we would enjoy for years to come. It was a long process as it took us over a year to complete. In the end we were very happy about our decision and we certainly learned a lot along the way. We think our experience can be summed up in two words – "be patient." Here are some hints of what we mean.

B – BEGINNING

Start by determining your needs. What are your major uses for the aircraft – advanced training, local flights, cross-country on weekends, how much you plan to fly, availability, willingness to share. What are the load requirements – number of people, how much fuel, and baggage? What *really* are the "must haves" and what are the "nice to haves" – engine size, speed, range, fixed/retractable gear, seating, instruments. The answers to these questions are the foundation of your search so you need to be honest with yourself. Remember, the more toys you include the bigger the up-front and on-going costs.



E – EXPENDITURES

Calculate how much you can spend. The first cost is the initial purchase price – and don't forget the taxes. Even if you find the "perfect" plane, there will be things that need to be done right away. Your first annual inspection will likely be expensive, as the mechanic will want all of those things fixed that the previous owner hadn't done. It has been said, "the purchase price of an aircraft is the down payment on the maintenance." Always keep reminding yourself of this. Determine the "hourly rate" – this is made up of fixed costs (insurance, storage, annual inspection, loan payments) and hourly/variable costs (fuel, oil changes, regular maintenance).

Don't forget to include a contingency for surprises and that engine overhaul that needs to be done when the time comes. Once you have the total costs for a year, divide it by the total hours you hope to fly to get the hourly rate. First thing, the average pilot flies less than 50 hours per year – so don't over inflate this number to get the hourly rate down. Second, compare this to renting to see if you are really ahead. Third, don't kid yourself into thinking it will have minimum impact on your budget. Make sure you discuss it with your family, as you want to make sure things keep running smoothly on the home front. Consider other options: renting, partnerships, purchasing block time, fractional ownership.

For information on <u>estimating aircraft operating costs</u> see COPA's Website under "Members Only," select "Members only documents." There is a link to an aircraft operating cost estimating program developed by Adam Hunt. It only operates on Microsoft Excel 2000 or XP software for PCs.

P – PREPARATION.

Do your homework. Use the Internet, as there is loads of information about various aircraft and lots of flying organizations that have their own Web sites. There is a great wealth of knowledge in the member's only section of the COPA website. If you're not a COPA member, become one right away as it will pay off in more ways than one.

Talk with people: other owners and pilots, flight schools and clubs, mechanics, etc. Narrow down the list to a couple of types of aircraft as soon as you can. This will help you focus your search as you can easily get swamped with trying to keep track of all the possibilities. Read everything you can: books and articles on how to buy used aircraft, engine overhauls, instrument guides, inspection and maintenance. We even found a book that is a compilation of articles from owners about all the things they found that went wrong with Pipers over the last 20 years. There are a few good Web sites and aircraft trading magazines that post aircraft for sale. Use these to determine the going price and availability for the types you are looking for. This will definitely make you adjust your thinking about your needs and how much you can spend. Prices usually are well correlated with a few parameters: airframe TTSN (total time since new), engine time SMOH (since major over haul), instrumentation (a nice IFR panel, for example), propeller inspections, and interior/exterior rating (usually out of 10). Find out the approximate "BlueBook" value and consider typical appraisal estimations.



A – ANTICIPATE

Getting "your ducks in a row" early is important. Get quotes for insurance from a couple of sources and learn everything you can about the types of insurance. Select the coverage and a company that best meets your needs. Contact your lawyer to review all of the general agreements in advance and have them ready to do a lien check at a moment's notice. Talk to your financial institution or bank to ready them for any funding you may require. Find out where you're going to store the plane (location, hangars, tie-down) and how much it's going to cost for the service.

Most important is to find a mechanic you can trust and who is familiar with the type of plane you are looking for. This is an important relationship – not just at the inspection stage, but throughout the time you will own your aircraft. Talk with people and search out the best mechanic you can find. Start to build this relationship early in the process and discuss your plans for your search.

Don't forget to talk with Transport Canada, as they will help you understand the required steps you need to go through when transferring the ownership. Having all of this work done in advance helps relieve the pressure as the deal draws near and prevents any delays when timing may be critical. When the right plane comes along, things can move very quickly and you don't want to miss the opportunity because of something you didn't anticipate. Remember, the market is tight and if you are looking at a certain plane the chances are good that someone else will be too.

T – TIDINESS

Lists, lists and more lists help keep things tidy and organized. We're great believers in making lists to help you out as it ensures that something hasn't been missed. In our search we saw lots of helpful lists, but nothing comprehensive – so we created our own by combining the others. It is also important to tailor the lists to include specific items and problems related to the type of aircraft you are considering. We made lists for everything: requirements and needs, questions for the owner, walk around, test flight, pre-purchase inspection, log reviews, aircraft compliance (ADs, SBs, STCs), documents to be completed, contacts, etc. You might even want to include a list of all the lists you made so you don't miss using a list when you are supposed to.

I – IDENTIFYING

Finding the right aircraft takes time. This is the most time consuming part and can become discouraging very quickly. Use the Internet, brokers, COPA, aircraft newspapers, trade magazines, friends, fly-ins, postings at flying clubs and airports.

Don't be surprised when you find out that the average age of the used aircraft in operation



today is about 30 years!

Brokers can help, but make sure they are working for you – after all, in reality you will be paying their cut (about 6 per cent in the purchase price) if you buy the aircraft. A good broker will look at lots of aircraft and will only choose to represent the best ones they find. There can be a lot of junk out there if you are not careful – *Caveat Emptor* (buyer beware).

If you get one imported from the United States, find someone who knows how to do this, as it involves plenty of paperwork and can be full of hidden surprises. Importing may appear cheaper at first, but you may not be ahead as much as you think as there are a lot of regulations and maintenance issues. Make notes on every aircraft you consider, so that you can reference the information later. If you think you've found a possible aircraft, make a phone call (it's cheap) and use your list to get answers to all your initial questions. If the owner doesn't know the information and doesn't seem to want to find the answers, run away as fast as you can. If it looks like a good possibility, ask the owner to photocopy the recent logbook (journey, engine, propeller, and airframe) entries for you. Be willing to pay for this, it's only fair, and shows the owner that you are truly interested. When you get them, review the logs for any glaring issues and omissions.

E – EXAMINING

Now that you think you have found the right aircraft, the bucks start to seriously flow. It's time to go see it, or have it brought to you. Even before you start, be skeptical and you *must* be willing to walk away at any time. We did walk away from the first serious one we found because we were concerned about some items, even though the deal was well along the way to being complete. The last thing you want is to be over enthusiastic, as the owner will know he has a "live one hooked." Take a pilot friend to make sure you are level headed and not too excited that you found "the right one." When looking at the plane, follow your lists and do the best darn walk-around you have ever done. Paint is cheap and can cover a lot of evils. Engine and instruments are the most costly to buy and keep up.

Never belittle an airplane you are looking at. It is the owner's pride and joy. In fact, build a friendship with the owner. You will have much to learn from them even after you buy their aircraft. We certainly did and continue to do so. Never buy a plane that you haven't been in for a test flight. Make sure you go up with the owner and make sure they know they are PIC. Watch every move they make in going over the preflight checklist and during flying. If they skip something, you need to ask why.

If you think it meets your expectation, the time has come to negotiate a price, put a deposit on it and sign a purchase agreement. This holds the aircraft for you. Make sure that you include a pre-purchase inspection by a mechanic of your choice as a presale requirement. Also list the navigational equipment, instruments and other items (canopy covers, tow bar, etc.) in the agreement.



N – NECESSARY

Now is the time for the pre-purchase inspection – get one done! There are a bunch of things you can have done even before the pre-purchase inspection is started. Have your lawyer do a lien search to see if the owner really owns the aircraft or if they have used it for collateral to buy something else. Ask the owner to have an oil analysis done. It's the only way to get an idea about what's going on inside the engine without taking it apart. Let your mechanic review the photocopies of the logs in advance to see how well the aircraft has been kept. Make sure all of the Airworthiness Directives (ADs) are complied with.

The pre-purchase inspection is best done at your home base with your mechanic. Do not have it done by the mechanic that has been servicing it for the current owner. Have your mechanic make a written report and point out all of the things that need to be corrected, and an estimation of the costs to fix them. The pre-purchase inspection will cost you some money but it will be the best money spent during your ownership experience. It finds the problems before they are yours and gives you a negotiating position to have the current owner do the required work or to lower the price. A few hundred dollars at this time could save you thousands, or even find a showstopper. Remember that no aircraft is perfect and you should expect that there will be things that you as the new owner will have to take care of.

T – TRANSFER

Completing the deal is easy once you have negotiated the price and any work to be completed. It's time for the financing and insurance to be activated. There is some paper work: bill of sale, Transport Canada change of ownership and interim certificate of registration, receipts, and of course, the exchange of a nice, large cheque for keys, logbooks, other equipment, and documents. If you didn't buy the aircraft you may have to pay for transporting it back. If you did buy it, you may have to pay for it being brought to you and sending the pilot home. Let the storage facility know that you have a new aircraft to put there.

Don't expect to go flying right away. Now it's time to do the fixes that the mechanic found.

Spend some time with an instructor familiar with the aircraft to do a complete check out: stalls, steep turns, slow flight, forced approaches, circuits, circuits and more circuits in cross-winds. And if you're night-rated, don't forget about night landings too!

It may seem to be a complex and long process, but breaking it down into smaller steps helps a lot. Patience is rewarded, and with some preparation, time and effort you can even do it yourself (with a lot of help from your friends). The journey in finding that "right aircraft" is an adventure in itself and we have enjoyed it (so far). Before you know it, you will be starting to "bond" with your very own aircraft.

Darin and Lisa live northwest of Ottawa. Darin's interest in flying began when he was studying



Aerospace Engineering at the University of Toronto. Like a smart husband, Darin knew that he couldn't start to fly until he had saved enough money so that Lisa could take lessons too. They began training at Ottawa Aviation Services and each completed their PPL in June 2000. Two days later they discovered that not only can they wallpaper together but can also fly together. Their search for an aircraft resulted in the purchase of a 1973 Piper Cherokee 140 with a nice IFR instrument package and a few extra horses under the cowling. Both continue IFR training in their new aircraft and explore airports far and wide.

The First Year Of Aircraft Ownership

By Darin & Lisa Graham (published in COPA Flight – January 2003)

In the August 2001 edition of *COPA Flight*, we told you about buying our first aircraft and some of the steps we followed to help us find the right plane (see article "<u>Buying your first aircraft? –</u> <u>BE PATIENT</u>").

It is now just over a year (16 months actually) since we bought our 1973 Piper Cherokee 140 - and what a ride it has been.

Having put more than 200 hours of air time on it, gone through both an annual and a 100-hour inspection, trips all over Ontario and the Maritimes, and both of us having completed our IFR ratings on it, we thought we might share some of our experiences that might help other "new owners" during the first year.

Before we start with some of the details, there is no doubt that it has been worth owning an aircraft, but it does take commitment to maintain the freedoms ownership brings. Here are some "pilot reports" that we hope will guide you through the first year.

PIREP #1 – GET A PRE-PURCHASE INSPECTION DONE

The difference between having a good first year of ownership and a bad one starts before you even own the aircraft. When you think you've found the right plane, having a pre-purchase inspection done by a mechanic you trust is one of the most important items you need to do.

Have your mechanic do a complete inspection just as if they were doing a 100-hour or annual inspection, without actually fixing anything.

Get the mechanic to make a written report that points out the things that need to be corrected and an estimation of the costs to fix them. Have an oil analysis done to "see" what is going on in the engine.

Early in our search for a plane, we thought we had found a good one, however, the oil analysis



showed potential problems with the engine and saved us from a large and costly surprise in the future.

If major problems are found before they become yours it will help you decide if you want to buy the aircraft or negotiate a lower price and have the work done.

The inspection will cost you some money, but a few hundred dollars could save you thousands or even discover something major that will prevent you from buying the plane.

No aircraft is perfect so expect to have some work done on it right after you buy it.

PIREP #2 – TAKE YOUR MECHANIC TO LUNCH

Your AME will be the most important person keeping your aircraft running smoothly and in a condition, you feel confident with.

Take the time to become friends with them. Most mechanics are busy so don't interrupt them while they are working on someone else's aircraft. Book a time with them to take them out to lunch. This way they can concentrate on your issues and answer all of your questions without distraction.

The best mechanics will be cautious about your aircraft during the first year. They have not been the one who has maintained it before and will want to check everything out extra carefully during each visit to the shop.

They are probably even watching you as an owner to see if you get things fixed right away or let them slide until the next annual inspection. Once they become familiar with the aircraft things will go smoother with each inspection.

The AME will also point things out that will need to be looked at or upgraded in the future. This will help you better plan your expenses and getting things done before they become a concern or lead to a major problem.

Select a good AME and don't go switching to a new one every year. Doing so will only mean that each new mechanic will have to go through the whole familiarization cycle and that can become costly.

PIREP #3 – THE FIRST ANNUAL INSPECTION MAY BE A BIG JOB

The pre-purchase inspection of our aircraft found some minor things that needed correcting which we had fixed right away. But, it is the first annual inspection where everything gets a good going over.

For those not familiar with the process, it seems like everything is taken apart and spread all



over the shop floor. Indeed, that is almost the case.

The AME follows a prescribed list of things to do and check for. It would be worth your while to see this list before hand and walk through it with the AME to see what will be done.

All the access covers and panels are taken off and a good inspection for corrosion is performed. All of the Airworthiness Directives (ADs) and Service Bulletins (SBs) are checked.

Some engine-related work is done such as removing and cleaning spark plugs, a muffler inspection, oil and filter changes, and checking the condition of the hoses. Other standard items such as cleaning wheel bearings, checking seat belts, and a thorough inspection of the propeller are done.

The annual is a good time to have all of the "out-of-phase" items completed – compass swing, tachometer calibration, pitot/static check, ELT test, fire extinguisher and first aid kit check, and encoder testing.

It seems like that the aircraft is grounded forever. It took about two weeks for our first inspection since some items needed to be sent away for work and new parts ordered. We also had some additional work done that we had planned to do such as installing an engine preheat system.

You might want to consider having the inspection done during times when the flying weather is poor, like late fall or early winter. Once the aircraft is put back together a flight test may need to be done to see that everything is in working order.

When you rented planes this job was left to the club, but now you own the aircraft and it is up to you to do it. You need to do the best walk-around that you have ever done. Keep your flight close to home and do a couple of circuits to check things out before venturing farther away.

An annual inspection is not inexpensive. When all was said and done, our first one cost about 10% of the purchase price of the aircraft. Although we had a lot of extra work done, you should not expect to get away with a few hundred dollars. Too cheap a job could cost you in the long run.

PIREP #4 – LEARN ABOUT YOUR AIRCRAFT

As an aircraft owner you need to learn as much about the aircraft as possible. Not only will you be better educated but you will be able to have a better understanding when things go wrong.

There are lots of books and manuals to read that will help you explore this new realm – general maintenance, engine overhauls, avionics problems, even hints and tips about your specific aircraft. There are also lots of workshops to learn about these things.

Transport Canada gives regular seminars on the regulations and responsibilities of being an



aircraft owner. One of the best ways to learn about your aircraft is to "help" the AME during the annual inspection – if they are willing.

Start with the simple things such as taking off access plates and covers. Make sure you have lots of labeled baggies for the screws so you know where they came from. Under the AME's supervision and guidance, they might have you work up to things like cleaning wheel bearings and spark plugs and even change the oil.

Your friends maybe able to say they have changed the oil on their cars, but you can boast that you've changed the oil on your airplane. As an owner you should know that it is your responsibility to ensure the aircraft is maintained according to the CARs (Canadian Aviation Regulations).

Remember that the CARs state that a description of all work done must be entered in the appropriate logs and that a qualified person must sign-off on the work done. Armed with even basic knowledge can help you troubleshoot and assist the AME is finding the problem. On our trip to the Maritimes this summer we were stuck in Charlottetown with a problem, and no mechanic anywhere. Knowing the basics helped us go through a mental checklist to try and isolate the problem.

Once we thought we found the cause, a call to our mechanic back home verified our suspicions. After a quick chat we determined that we could safely fly to Moncton to have it looked at. By late afternoon it was fixed and we were back on our way to Halifax.

Being involved in the annual inspection certainly helped us know more about the aircraft and got us out of what could have been an expensive and time-consuming situation.

PIREP #5 – WHEN OWNING AN AIRCRAFT YOU OWN SOME GREMLINS

All in all it has been great to own an aircraft but you've got to constantly watch out for those gremlins.

These pesky little guys cause problems when you least expect them. During the course of the last year we have had our share of gremlins and they will pop up regardless of the best annual inspection and regular maintenance.

Navigation equipment seems to be a favourite hiding spot as we've had some problems with our DME, ADF and audio panel. The electrical system is another place to search for them as we've had our ammeter go to zero while flying and our voltage regulator fail.

Some are fixed by simply replacing a circuit breaker while others require sending the equipment away to a place far, far away – and requires at least a week to fix it. Regardless of the size of the problem, it always seems to cost about \$300 to fix, so keep lots of "rainy day" money available to solve these problems.



The best way to keep these little critters from causing serious problems while flying is to do a good pre-flight walk-around, thorough instrument and run-up checks before the flight, and constantly look at the gauges during your flight.

You may not be able to stop those gremlins but at least you will have more time to analyze the problem and find solutions. Knowing how they happened and testing for some basic and simple things will certainly help your AME come to an answer faster.

As airplane owners you know that they will never go away but at least you hope you can make the gremlins fewer and farther between.

PIREP #6 – MAKE LOTS OF LISTS

Making and using lists are not a new experience for pilots – we should use checklists all the time.

There are lots of new lists you might want to consider keeping, regarding you and your aircraft. Check the Internet for all of the ADs relating to your aircraft, print them out and read them. This will help you understand what the ADs are about and how often they need to be done.

While you're at it, look over the inspection checklists regularly and create a schedule of when the out-of-phase items (compass, ELT, etc.) need doing.

Another list that you might consider making is a "Personal Minimums Checklist". This list describes the minimums you have set for yourself such as the number of take-offs/landings in the last 30 days, number of hours sleep before flying, and weather minimums needed to exist before flying.

There is strong support that this type of checklist allows pilots to make better decisions and keep them out of trouble. Checklists used during regular and emergency flight operations must be based on the POH first, with any personal alterations as secondary. Like all lists you should review these operational checklists, especially the emergency one, on a regular basis.

PIREP #7 - REGULAR MAINTENANCE - CHEAPER IN THE LONG RUN

As a car TV ad once said "You can pay me now or you can pay me later", it is vital to do oil and filter changes with your aircraft.

We do it about every 50 hours of airtime, but you may have to do it more regularly depending on your filter system and how often you fly.

The AME should cut open the oil filter and inspect for any metal bits. This, together with an oil



analysis, are some of the only ways to "see" what is going on inside the engine.

Regular oil changes keep the engine-wear down and a better running engine will keep that eventual overhaul from happening sooner than expected.

We flew over 200 hours in our first 16 months of aircraft ownership, and although not necessary for private aircraft, we did a 100-hour inspection about six months after the annual inspection.

There are certain ADs that need to be done at the 100-hour point anyway and we were about to embark on our first long distance trip, so we wanted everything to be in pristine shape. The 100-hour inspection is nearly the same as an annual but without some of the out-of-phase checks.

After having been through the annual inspection, we did a lot of the work ourselves, under the supervision of our AME. It took about a day and a half and cost less than \$500, including parts.

Regular upkeep certainly has paid-off in lower maintenance bills and having the aircraft in working condition whenever we want to go somewhere on the spur of the moment.

Don't forget to include regular washing and waxing of the aircraft to help keep it clean and shiny – and if you wish hard enough it might even gain you a few knots of airspeed.

PIREP #8 – YOU'LL ALWAYS NEED MORE TOYS AND UPGRADES

As an aircraft owner you will always see those "little extras" that you "must have."

The first year is costly enough so keep your list of toys to the bare minimum. Select only those things that will really make you life easier and safer. For example, we bought a good tow bar that certainly made it much easier to move the plane around on the ground.

Regardless of whether you store your plane in a hanger or not, a good canopy cover is a must as it will protect the instruments from sunlight and keep the cockpit cooler when you park your aircraft as you travel around the countryside.

Since a Canadian winter brings all sorts of surprises – snow, ice, sleet, hail – we also bought wing, stabilizer and cowling covers. In addition, we had a Reiff engine preheat system (cylinder bands and sump heater) installed at the annual inspection.

The covers certainly make it easier to prepare the plane for enjoying those crisp winter days. The engine heater made starting easier and will help prolong the life of the engine – keeping costs down in the long run. A handheld GPS unit and a handheld radio have assisted in making our flying easier and safer knowing we have an independent backup should failures occur in flight.

One thing for certain, with all of the "stuff" you'll want, you'll never have a shortage of ideas for your birthday or Christmas list.

PIREP #9 – START BUILDING A POOL OF MONEY

As mentioned earlier, surprises do happen and things need fixing. Also, you may wish to do some significant improvements such as new paint and interior, or upgrading your avionics, sometime in the future.

Just like clubs do when they rent you an aircraft, you need to set aside some money to pay for these expenses and start building a pot of funds for planned improvements. One certainty that will occur is that at some time you will need to have the engine overhauled.

The more often you fly the sooner it will likely need to be done. If you fly less often, you might be able to stretch it out a few years before the overhaul needs doing. Either way, you should start to build a fund of money to pay for the work.

Flying the amount that we do on a yearly basis, we have already begun saving for this. The easiest way to determine the amount of money you need to save for every hour you fly is to take the cost of an overhaul and divide it by the engine time remaining before an overhaul needs to be done. This is not a small amount of money and maybe a high percentage of the hourly cost of running your aircraft.

PIREP #10 – FIRST-YEAR OPERATING COSTS WILL BE HIGHER THAN EXPECTED

On the COPA web site you will find lots of good information and calculations that will help you determine the hourly cost of operating your aircraft. These are for "normal operations" and will probably under estimate the actual costs of the first year as you get the airplane the way you want it.

Here is our first year of expenses breakdown. You should remember that this is slightly skewed because of the higher-than-average number of hours we fly and the extra work we have had done, but it will provide you with some guidelines.

- 30% Fuel
- 30% Maintenance, of which half was the first annual inspection
- 10% Fixed costs, including insurance, landing fees, maps and CFS, etc.
- 15% Engine, savings for that eventual overhaul
- 15% Upgrades, such as covers, Reiff heater, handheld GPS and radio



PIREP #11 – HAVE FUN!

Owning your own airplane is a lot of fun and it can teach you a lot about living. It provides you with the freedom to go somewhere at the spur of the moment and explore areas you couldn't otherwise do.

Enjoy your new purchase – take friends and family for rides, get away for the weekend, or even take an extended holiday. Our plane has become our "cottage in the air".

In order to enjoy this freedom with confidence you need to keep the aircraft in good working order. Be prepared and expect the unexpected. Airplanes have this uncanny ability to know when the pilot is getting to cocky and needs a little surprise to set them back on track.

Get regular training from an instructor and consider upgrading your license to include a night rating and maybe even an IFR rating. You didn't buy an airplane to have it on the ground – so, go flying!

Articles from Affordable Flying

Affordable Flying - Partnerships and Engine Overhauls

By Adam Hunt & Ruth Merkis-Hunt

We recently received an e-mail from COPA member Michael Schuler with a good question about the best way to deal with the problem of engine overhauls when an airplane is owned by a group of partners.

Dear Adam,

I would appreciate it if you could shed some light on how to handle expenses in a partnership. We have a copy of the agreement that is available from COPA, however, there is some question regarding whether or not overhauls should be paid for based on a prorating of hours flown.

Your prompt response would be most appreciated.

Michael Schuler

Dear Michael,

Thank you for your e-mail. You have raised an interesting point there regarding partnerships



and the cost of engine overhauls. The bottom line is that the deal is YOUR deal and therefore you can design it anyway that you want, anyway that works best for you. The situation to avoid is where no provision is made for engine overhaul and then, when the engine suddenly needs one, you have no money available and the aircraft ends up grounded or partners get hit up for a large sum and refuse to pay. Most aircraft owners do NOT put money in the bank every time that they fly an hour off their engine. That is fine if you are on your own and have the financial resources to take care of an overhaul.

My personal recommendation is that you work out an overhaul cost and include it in your hourly flying time, something like this:

- Determine the current cost of an overhaul (be advised that these will go up in time and so make adjustments as time goes by). The best way to figure the cost is to ask a reputable overhauler. Costs vary a lot based on the type of engine. This past winter Ruth and I overhauled two Lazair Rotax 185 engines for about \$170 each. The current (2005) overhaul cost of a Cessna182's O-470 is about \$29,500, so get a realistic figure.
- 2. Figure out how much per hour that works out to. The O-470 example above, on a 1500 hour TBO, would be \$16 per hour.
- 3. Now figure out how much is already spent in other words how many hours are on the engine already. You can either ask the partners to put that proportional amount,
- 4. divided by the number of partners, in the bank, or else increase the overhaul assessment per hour proportionately on the hours remaining, so that you still end up with the full amount (in the case of the O-470: \$29,500) by the time the engine hits 1500 hours.
- 5. Bank the money from each hour flown and hopefully the interest will cover the inflation on the overhaul when it comes due. If not then each partner will have to contribute more, perhaps proportionally on the basis of the hours that they flew.

I hope that makes some sense. There are lots of other ways of doing it, but they almost invariably require that all the partners put up a large amount of money all at once.

The main danger in not collecting overhaul money each time the plane flies is that if one partner dies or quits, then the remaining partners will end up paying for the overhaul that the departed partner flew off.

Good luck with your partnership. Please let me know if you have any other questions!

Yours truly,

Adam Hunt

COPA

Dear Adam,

Many thanks for your fast response.

The real question is should we divide the overhaul cost or estimate by the number of partners or have each partner contribute based on his number of hours used. The "standard" agreement suggests 50% divided equally and 50% based on number of hours. The agreement uses this formula for repairs but does not spell it out clearly when it comes to overhaul. Your help is much appreciated.

Michael

Dear Michael,

Nice to hear from you again!

As I mentioned before how you divide it up is really up to the partners involved. Probably the most important factor is what seems "fair" to all involved!! As long as it seems fair to everyone then no one is likely to feel that they are being taken advantage of.

My personal feeling is that fixed costs, like hangarage and insurance, which are the same per year, whether the plane is flown at all or not, should be split equally. At the same time hourly costs, like fuel, oil and overhaul costs should be paid for by the person who used them. Most partnerships after a time will notice that one person is doing more flying

than the others. It is quite unusual for four partners to fly each 50 hours per year on a plane. More commonly you will find one flies 120, two fly 50 and the last guy only puts 20 hours on the plane, either due to time or money constraints. When the overhaul time comes it seems pretty unfair to ask that last guy to pay for wearing out the engine the same amount as the first guy.

To put some numbers to this theory let's consider 4 partners buying a Cessna 182, with a zero time engine. If we use the above flying rates per person in the partnership then the plane will fly 240 hours a year and the O-470 engine will run through its 1500 TBO in 6 ¼ years. At current rates the overhaul will cost about \$29,500. If all divide the overhaul equally then the guy who flies the most (120 hours per year) will pay his equal share of the overhaul (\$7375) having flown 750 hours on the engine. That means that the overhaul cost would have been \$9.80 per hour. The low time guy (20 hours per year) will also pay \$7375, but will have only flown 125 hours. He



will be paying \$59.00 per hour for overhaul costs. It doesn't really seem fair to penalize the low time guy because he can't fly more, especially if the reason that he can't fly more is because he can't afford it!

One of the strongest reasons to collect overhaul money on a regular basis, say each month, on each hour flown, is in case someone drops out or dies. It is a sad phenomenon that when partnership airplanes need a lot of expensive work suddenly, some partners just drop out. If they have already flown off a bunch of hours, only paying gas and oil, then the remaining partners will have to pay for the missing overhaul share, or else ground the plane. This is probably an important point these days as more planes sadly get grounded by high overhaul costs.

As I mentioned earlier the real key to an aircraft partnership (like any marriage) is that everyone has to feel that they are being treated fairly. I would suggest that you ask each partner what they think would be fair in the overhaul question and then see what everyone will live with. If you have compatible partners then you should be able to find a solution that no one objects to, one that everyone thinks is fair.

Please do let me know what agreement you all come to - what you think is fair. It would be useful to pass onto other COPA members, perhaps in our column on "Affordable Flying"!

Yours truly,

Adam

Affordable Flying - Partnerships

By Adam Hunt & Ruth Merkis-Hunt

There are two obvious problems with owning your own airplane. First, it can be expensive and second, there is a lot of time when the airplane sits, unused. Many would argue that airplanes are not expensive, that is debatable, depending on what you mean by "expensive", but the second point cannot be debated much. The average Canadian, privately owned airplane flies only about 50 hours per year. Did you know that there are 8760 hours in a year? That means that that average plane is flying only one half of one percent of the time. To put it another way: it is sitting on the ground 8710 hours a year. That's kinda sad, isn't it? Many airplanes seem to be in danger or "rusting out" before they wear out.

There is one obvious solution to reducing the cost of owning an airplane and increasing its use as well. Partners. Yes, the very thought sends shudders down some pilot's spines. We have had several readers write in about their partnership experiences and they all offer the same advice – partnerships can work very well or they can be awful experiences. The big difference is



whether you pick the right partners and whether you have a good partnership agreement.

Airplane partnerships are much like marriages in many ways – the success is decided by who you pick and the deal you have to live with them by.

There are an infinite number of ways to arrange the cost sharing in a partnership – just make sure that you have it in writing and stick to it. Just like in marriages, there is no right way and no wrong way, only things that work for you and things that don't. Some partnerships work where one person runs the plane almost as if it is his own and the other partners just pay per hour. Others work where there is a buy-in cost and then so much per hour. Some just pay a flat yearly fee to cover all the expenses and then pay their own gas and oil.

One way to do it

Our preferred way of doing it follows the scheme we have used all along in this column of dividing costs into fixed and variable (or hourly) costs. It is probably the method used the most often in airplane partnerships in Canada, but as we have said, isn't the only way to run a partnership.

In this method there is a cost to buy a share of the plane, whether you are buying into an existing partnership, or buying a new plane together. That's the capital cost and usually it is split evenly. If there are four partners you each buy ¼ of the plane.

Then there are the operating costs. Fixed costs typically include insurance, tie down or hangarage costs, fixed annual maintenance and Nav Canada's ANS fee. Those are the costs that don't change, no matter how much the plane is flown. The variable or hourly costs include, fuel, oil and the engine overhaul reserve.

The fixed costs are split evenly and the person who flies that hour pays for the hourly costs. Gas and oil costs are pretty straightforward, although you have to make sure that people don't leave the oil "low" to avoid the cost of buying another litre. To avoid that problem many partnerships, move the oil to a fixed cost and buy it by the case lot. That way it is always there with the plane and there is no excuse for not keeping the oil level up where it belongs.

Overhaul Blues

As we saw last month there is a lot of debate as to how engine overhaul costs should be split. As always, it is up to the partners to decide what works best for them, but it is definitely an hourly cost and our belief is that the person who flies off that hour should pay for that hour's worth of overhaul. Included in the capital cost should be the value of the hours already flown when the plane was purchased. If you buy it with a half time engine then you need to put the money for those hours flown into the bank towards the overhaul. If you don't then you'll be short 50% when overhaul time comes around! We are of the opinion that the overhaul amount



should be collected as you go, preferably monthly. If you wait to collect it, then you run the risk of a partner leaving the partnership or dying, or something similar. Then the other partners remaining have a problem.

Insurance

Insurance is another interesting issue. Most partnerships opt for full hull insurance to protect all the partners from an accident by one of the pilots. The trouble is that full insurance, including in-flight coverage, is expensive. Some partnerships don't get full insurance and either the partners are willing to accept the loss or else they all agree to fix whatever they break. There really isn't a good solution here, but you need to find a solution that works best for the comfort of everyone. Our recommendation is to go for full insurance, including in-flight, unless you are partnering on a homebuilt or ultralight and you are willing to all pitch in to fix it, if it is damaged.

Reality Check Time

So let's look at a real-life example of a partnership structure and compare it to single person ownership. We'll use our tried and true Cessna 150 for an example.

Four partners get together and buy a Cessna 150. The plane costs \$19,000 and so they each pay \$4750 for it. The plane has a half time engine. In the case of the C-150 that means that the Continental O-200 has 900 hours of an expected TBO of 1800 hours. An overhaul on an O-200 costs about \$22,000 these days, so they need to come up with \$11,000 more to cover the overhaul cost for the hours already flown. Divided by four, that means that they each add \$2750 to the pot for a total investment of \$7500. That's to buy a 150 plus the share of an overhauled engine.

They decide to get a full insurance package, including passenger seat, liability and in-flight and ground hull coverage and when the insurance company considers the flying times of those involved that comes to \$1500 per year in this example. Each pilot figures that they will fly 50 hours per year. Here's the breakdown:

Cessna 150 cost calculation with four partners (2020 costs - approximate)

Fixed Costs per year:		
Insurance		
\$1500		
Tie down		
\$360		
Maintenance (not including engine overhaul)	\$ 2000	
Nav Canada ANS fee (Cessna 150s are not exempt)	<u>\$72</u>	
Total fixed costs per year		

\$3932



Variable (or hourly) costs:		
Fuel (100LL at \$1.90 per litre X 20 L/hr).		\$38.00
Oil (consumption plus 25 hour oil changes)		\$1.26
Engine overhaul reserve (1800 TBO)	\$	<u>12.45</u>
Total hourly costs		
\$51.71		

Here is where the math gets tricky! The purchase price and fixed costs are what you are sharing in a partnership, the hourly costs are not! In a partnership of four pilots, the fixed cost total is divided by four and then the hourly added on. For a pilot flying 50 hours per year the total cost per year (excluding her capital cost) is \$3568, which works out to \$71.37 per hour.

In comparison, owning a Cessna 150 alone and flying the same number of hours would cost \$6117, which gives an hourly cost of \$122.34. That is a savings of 42%, as a result of sharing the fixed cost with three other partners. Of course, where you really save is in the initial purchase price, which is 75% cheaper per person in a partnership of four. We should point out that the single-owner cost mentioned above includes third-party and not-motion hull insurance only, since most single owners probably don't take out full coverage.

Increasing Partners

One last note on partnerships. Taking on twice as many partners will not drop your operating costs by 50%. The extra partners will help cover the fixed costs but the variable cost will remain the same. The other factor is that the more people that there are flying the plane the more money insurance companies want to provide the same coverage. They call it "exposure". They figure that more people fly more often and so the plane is exposed to more risk that way. So typically, if you doubled your four partners in the example above to eight the insurance cost would go up. One partner flying 50 hours per year on a Cessna 150 in a partnership of eight might see a total cost of \$3088 yielding an hourly cost of \$61.62. That is only 14% cheaper for doubling the number of partners.

Affordable Flying - Getting Along in Partnerships

By Ruth Merkis-Hunt & Adam Hunt

Last month, we discussed the more practical issues surrounding partnerships, focusing on the costs involved in sharing an aircraft in a partnership. This month, we will focus more on the problems of getting along with the other partners. We will look at the partnership in two ways: mutual need fulfillment and communication. This last item is crucial towards getting the first item, so you can see why it's so important.

An aircraft owning partnership is a lot like a marriage. Shared ownership requires that each



participant and owner take responsibility for his or her share. In a marriage, if one partner is doing all the work while the other isn't, there are going to be problems. Shared aircraft ownership is no different. If there is only one partner that seems to be doing all the work, such as washing the plane, organizing the maintenance, taking care of fuel and oil, there will likely be problems between the partners. That hard-working person is not going to be getting his or her needs met, especially if none of the other owners help out. Is this a fair scenario? Not likely.

We add the qualifier "likely" because there may be the one odd owner who actually doesn't mind doing all the extra work, such as washing, vacuuming and fuelling up the plane. How would we know who enjoys doing what? Communication.

When we speak of communication, we typically envision one person talking and one person listening. Sure, that's what it looks like, but far too often, it is one person talking while the other person doesn't listen. The speaker, after stating his or her case, will often assume that the listener will fulfill his or her part of the bargain. The conversation ends and all parties walk away, satisfied that all went well...until the next time someone forgets to fuel up the machine or doesn't clean up the left-over cockpit garbage. Then frustrations build.

Solving these sorts of problems shouldn't involve a great deal of effort. In fact, establishing everyone's needs before any deals or agreements are signed is the best way to go. For instance, let's assume that you have a Cessna 172 and four prospective owners who are willing to share the costs. What's first? Well, the first step is really in identifying each owner's needs. Who flies the most and for what reasons? Do you have a weekend, summertime only, fair weather flyer in your midst or are you made up of regular flyers who are up every day it's VFR? Are some of the pilots IFR flyers? Do the pilots prefer to fly alone or do they like to take their friends and family members up flying? Find out who needs the plane and for what. This is the essence of establishing mutual need fulfillment. No one person's needs are better than any others. That's not the purpose of this step. This is part of the information gathering stage.

The next step lies in establishing the rules of ownership. As we wrote last month, whatever way works best for you and your group is the best way to do it. What's most important, though, is in establishing actual rules. The best thing to do there is to write up your own rulebook. Make sure everybody has a stake in the rules. If one pilot flies the plane late in the evening and can only return long after the fuel pumps are closed, make sure this is brought up, especially if one of the rules you make is that the last person who flew the machine must refuel it. Brainstorm solutions to this particular dilemma. For instance, perhaps the pilot in question could arrange to come back the next day to refuel the aircraft when the fuel pumps are open. Leaving the tanks less than a prescribed amount, such as "full", leaves the next pilot paying for the last one's fuel unless some equalization system can be worked out. Not having a system like that can lead to disagreements and unhappy partners.

The list of potential problem areas can be long, but the point here is that open discussion should be able to address these concerns.



One of the most important things to consider is that problems and difficulties are going to happen. Again, as in a marriage, conflict is inevitable. All relationships between people involve conflict – the needs of two or more people are bound to clash at some point. This isn't a bad thing. Research has shown that the outcome of conflicts can be good for relationships. Conflict, successfully resolved, allows relationships, including aircraft partnerships, to get better and work better.

Scheduling conflicts are an obvious example. Suppose one pilot wants to take the aircraft on Saturday morning and another pilot wants to do the same thing. A conflict resolution mechanism should be put in place in order to deal with this. What do you do? Well, some partnerships have adapted a scheduling book in which you make your own bookings. If a pilot needs to book the aircraft when another pilot has already had it booked, the general rule of thumb is, "first come, first served". That doesn't mean there is no room to negotiate. One club in particular insists that its pilots not only book their own times but that they mark off the duration of their trip, their expected time back and their phone number so that if another pilot wishes to negotiate a conflict resolution, they can contact each other. There are lots of creative solutions possible. If you both want to go to the same fly-in how about going together, splitting the flying time and costs?

There are some groups where one or two owners "take control" and other owners book their times through them. While this may sound rather autocratic, it can also be quite helpful for some pilots, especially those who would prefer to have that sort of system set up. Other groups have Internet-based booking systems that allow any partner to book from anywhere that they can get onto the Internet. This gives a lot of flexibility.

Whatever system you agree to, what is absolutely crucial is that it is a system that everyone can at least live with and preferably agree to, wholeheartedly.

What really seems to work best is having an actual written agreement that is put in place between all parties involved. Written agreements do tend to take longer to negotiate but the time spent establishing them really pays off whenever a dispute arises. Written agreements also have the benefit of providing protection for all parties involved. In cases of disputes, one need only refer to "the agreement" for resolution. As well, in cases of ambiguous situations, the written agreement can also contain policies regarding expected courses of action.

Using the previously mentioned example of the pilot who cannot make it back on time to refuel the machine before the next pilot needs the plane, the written agreement can outline the policy involved. Such written agreements offer a sense of security for pilots. With such agreements or contracts in place, the pilots do not have to guess what they can and cannot do or, much worse, pressure them to push weather or daylight limits to get the aircraft back before the next pilot takes the aircraft.

Another area where agreements are useful is in outlining the recurrency requirements for all



the pilots on an aircraft. As well as having the pilots checked out annually, make sure that the requirements of the insurance policy are complied with. Some lower time pilots may have to fly more often to stay current than higher time pilots.

Finally, do not forget to address the various situations that pilots often encounter in operating the plane. Situations play an enormous role in how the flight is conducted, but they can often be controlled in advance. If a pilot is rushing back to the base to get the aircraft back before the next pilot has it booked, because of approaching night or to get back before the fuel pumps close, then the risk of having an accident increases. Have policies in place to address these very real situations. It will take a load off everyone's mind!

Affordable Flying – Appreciating Depreciation

By Adam Hunt & Ruth Merkis-Hunt

We have had several readers ask us about how to deal with the subject of appreciation and depreciation when considering airplanes. In the past we have indicated that these sorts of issues really should be considered separately from operating costs, that they should be considered capital costs. Perhaps this is a good time for another look at the issue.

In actual fact there are several interrelated issues here – appreciation, depreciation, capital gains tax, "life-limited" parts costs and loss of investment. All are mixed in together, and, as will be seen, most are really philosophical issues in how you look at them, more than strictly economic issues. Except the Capital Gains Tax, of course. That is not a philosophical issue, it is a nuisance.

Background

New airplanes depreciate. That means that they lose value as soon as you buy them. The same is true for new cars, RVs and even refrigerators. The sad fact is that new airplanes are worth less than you paid for them, even only a year after you bought them. This is part of the economic cycle of airplanes. As we have seen in recent years, new airplanes depreciate, then their value levels off and then, as the get older, they normally appreciate in value. Many older airplanes are worth several times what they were when they were new.

Dealing with depreciation on new airplanes

Because new airplanes depreciate this means that is isn't often a good idea to buy a new airplane if you will only keep it a few years. If you sell it after five years you will probably lose quite a bit of money in the difference between the buying and selling price. This is just one of the reasons that most people prefer to buy used airplanes – they have already gone through their new airplane depreciation phase and are now appreciating. Another reason is that they



cost less, too. That's depreciation for you.

Appreciation

After airplanes hit a certain age (it varies from plane to plane) they actually go up in value, sometimes greatly exceeding their original value. A 1976 model Cessna 182, that would have cost \$42,000 new, equipped, is worth about \$103,000 these days, in 2006. This effect turns many of these older airplanes in good investments. Many people are buying older airplanes, taking good care of them, flying them and then selling them as they become more valuable. With some specific models going up 12% per year in the 1990s it was possible then to actually own the plane, fly it and then sell it and recover your operating costs in the resale. That is almost like flying for free. Just watch the Capital Gains Tax when you sell it.

Capital Gains Tax

Yes, in Canada the rules changed again a few years ago. Now, when you sell a capital item, other than your principle residence, you pay Capital Gains Tax on the money you make. That means if you buy a plane for \$20,000 and then sell it for \$35,000 sometime later that you will owe tax on the gain, or \$15,000. The good news is that Capital Gains Tax is assessed at a rate that is 50% lower than your regular tax rate. That makes looking for capital gains a profitable experience. You still pay taxes, but at 50% off the regular rate. That is more attractive than earning money through working!

Life Limited Parts

All light aircraft have life-limited parts. These are parts that have a limited number of hours before they need to be replaced or overhauled. Almost all helicopters have lots of these lifelimited parts, that's what makes maintaining them more expensive than fixed wing airplanes. Powered parachutes' wings are very definitely life-limited, as are some other notable airframe parts on some other aircraft.

The most common life-limited part on light planes is the engine. Although manufacturer recommended time-between-overhauls (TBO) is no longer mandatory in Canada for non-commercial aircraft, the engines do wear out. This means that they will need overhauling near the recommended time anyway. Most of the common aircraft value references, such as the Aircraft BlueBook, point out through their numbers, that the value of any aircraft drops as the life-limited components get closer to overhaul or replacement times. The effect is that the aircraft drops in value \$1 for every \$1 of component life that is expended. Most aircraft value references use a mid-time engine as the benchmark. That means that if the current 2005 value of a Cessna 150 with a mid-time engine (900 hours flown off an 1800 hour expected TBO, with an overhaul cost of \$22,000) is \$19,000 then you need to adjust the plane's value for the engine hours actually on the aircraft. A Cessna 150 with a newly overhauled engine is worth \$30,000 and one with a run out engine is worth \$8,000, in this example. We have heard many people



asking the same price as a plane with a mid-time engine for one that is over TBO and "oncondition". The truth is that that engine is going to need an expensive overhaul pretty soon and that affects the value.

The bottom line on life-limited parts is that it affects the value of the plane when you come to sell it and thus impacts on the appreciation/depreciation analysis. That is unless you consider, as we do, that the engine overhaul reserve is an operating cost and that money should be set aside for each hour flown to pay that cost when it comes up. That banked money will also pay you back the difference when you sell the plane with fewer hours left on the engine. It really helps take the fear of deprecation out of the capital costs and into the operations costs. Something to think about. As we mentioned, it is a matter of philosophy.

We have always maintained that the overhaul reserve, the money to offset the overhaul cost should be accounted for and set aside for each hour flown. That way you are offsetting your deprecation for the cost of the overhaul from the start.

One note on overhaul costs. While the overhaul costs on two typical light planes engines may cost the same per hour, the impact may not be the same. The Cessna 150's Continental O-200 has an 1800 TBO and overhauls typically cost about \$22,000 these days. That means that each hour costs \$12.22 if you make it to overhaul. One of the most common ultralight and homebuilt aircraft engines, the Rotax 582 has a similar cost per hour. The recommended overhaul interval is 300 hours (although they are often run double that figure) and the overhaul cost is about \$2700. That produces a cost of \$9.00 per hour, very close to the 150's cost. One of the key differences is that putting out \$2700 every three or four years just doesn't seem as painful as putting out \$22,000 every decade or so, for the 150. Of course if you bank the money each time you fly then it won't seem painful at all, either way. The money will be there when overhaul time comes.

Loss of Investment

Many aviation writers and analysts over the years have suggested that you should include the loss of investment income in your calculation of what it costs to own a plane. We have always resisted that notion for a couple of reasons. The first is that if people didn't spend their money on flying then, at least for most of us, it is unlikely that we would invest it anyway and make some money on it. We are far more likely to buy a boat, a car or a vacation, if we don't buy a plane. The second reason is that most used planes have historically appreciated over time, as we have already noted. This means that they really are investments. The best part is that you can fly them while they are appreciating. The same cannot be said for mutual funds! Some planes appreciated as much as 12% per year in the 1990s. The same cannot be said for mutual funds in that same time period.

In summary, there are lots of factors to consider in buying a new or used airplane. Have a look at what you expect the value to do over the next few years when you buy a plane and include that in your capital costs. Don't forget the overhaul costs and think about how you want to



account for that in the overall equation.

Of course, after a while thinking about all of these types of issues makes our heads spin, like many pilots. At some point you have to be happy that you know what your flying costs and then just go flying. Thinking about the costs while you are flying is definitely not recommended – we think it takes all the fun out of it. So do make sure that you leave your laptop or ledger on the ground and then just go flying!

Affordable Flying – When Buying a Used Aircraft

By Adam Hunt & Ruth Merkis-Hunt

There has been lots of talk lately about buying used aircraft. This has included an excellent article or two recently in *Canadian Flight*. Perhaps the recent press coverage of the subject has been behind the several calls for some thoughts on this subject from Affordable Flying.

A reader recently asked us what the most important thing to do is, when buying an aircraft. They asked us whether it was important to do a lien check of the title, a comprehensive Airworthiness Directive assessment, consider STCs and their compatibility, concentrate on the asking price versus the BlueBook value and so on. Certainly those are all good things to think about. We have found that the list of considerations can be quite long. Other things that may top your list include: assessing the operating costs, checking out what insurance will cost, or in this insurance market whether you can even get insurance! Consider also where you might store the aircraft, outside or hangarage? What about the technicalities of getting an acceptable Bill of Sale?

There are almost an infinite number of things to worry about when buying an airplane, but some are worth worrying about more than others.

In our minds the most important thing when buying a used aircraft is the pre-purchase inspection, including, in most cases, a flight test. This seems basic knowledge, but it is surprising how many people get burnt on a purchase by missing this one item. Don't trust photographs to see how an airplane actually looks up close – they all look good if you shoot the pictures from far enough away!

Certified aircraft

Let's look at certified aircraft first. Most of the used, certified aircraft in Canada are "well-used", if not elderly. That means that they have been lots of places and done lots of things. They were probably in pretty standard factory condition when they were produced, but a lot has happened since then! They may have been damaged. Have they been repaired correctly? An aircraft that has been repaired well should be as good as a new plane. Have the ADs been kept



up with or are there some expensive ones that the new owner is going to have to pay for? Perhaps the biggest question is – has the aircraft been generally well taken care of over its life so far? Most aircraft will last forever if well taken care of. They will also suffer greatly if not cared for. The dangers here are simple things like corrosion and good old "wear and tear" on the parts. Have broken and worn out items been systematically replaced?

Who is the best person to look at a used certified aircraft? Probably an AME who is familiar with the type. It should also NOT be the AME who has been working on the plane in recent years. Using the recent AME is asking him or her to inspect their own quality of work. You are far better off finding another AME to give it a good look. The starting point that you want to put to the AME is not "Tell me it is a great plane", but rather "Tell me how much this will cost to fix what is wrong with it." A pre-purchase inspection will probably cost you a couple of hundred dollars, but it may be the best investment you can make when looking at an airplane.

Keep in mind that when you are looking wistfully at a 40-year-old plane with new paint, the best news that you can get from an inspecting AME is not "looks okay", but "It's a write-off due to corrosion." While we like to hear the former statement, the latter one just saved you a fortune and a lot of grief.

If you can't find an AME in the local area other than the one who has been working on the plane, then arrange to have the plane taken to where you can find someone to do the job. It is that important.

New certified aircraft

Is it necessary to have a new certified aircraft inspected? Probably not, as long as the plane has a good warrantee you should be well covered.

Homebuilts and Ultralights

The same principles apply to these categories of planes. The main differences are that the plane does need inspecting prior to purchase, even if it is new or almost new. The quality of construction needs to be checked out, even if there haven't been many hours flown or years gone by.

But who should inspect homebuilts and ultralights? Most AMEs are not very familiar with these types or even with their construction methods. AME experience and training with tube and fabric is dwindling and ability to inspect composites is quite limited. You can always inspect the aircraft yourself, if you have the experience and skills to do so. The best choice may well be someone who has built and worked on the type of aircraft you are looking at. They should know, more than anyone, what to look for and where the design's weak points are.

People with that kind of experience can often be located through aircraft type clubs, EAA and RAA chapters and, of course through COPA Flights, too. There is an amazing wealth of



knowledge in all those organizations.

Test fly or not?

Do pre-purchase inspections need to include a test flight? Test flying a factory-built aircraft will often yield no useful information to the untrained test pilot. A 172 flies like a 172 in most cases. Where someone with some type experience and some test pilot training can help you out is in assessing aircraft rigging, control surface rigging and similar characteristics. Something to keep in mind.

In our opinion used homebuilts and ultralights should always be test flown. It is preferable that this be done by someone with experience on the type. Two aircraft of the same type can handle very differently depending on how they were constructed and rigged. A good test flight can pinpoint many problems that cannot be found on the ground.

A further consideration in deciding to test fly an aircraft, as part of the pre-purchase, is if you don't have any time on type. It is surprising how many builders will purchase a kit and then assemble it, without ever having flown the design before. Most certified aircraft are quite stable and fairly uniform in their handling, mostly due to the certification requirements themselves. This is not the case with homebuilts and ultralights. Some of them have very delightful handling characteristics and stability, while others are dreadful. The really bad ones are no fun to fly, although you can probably get used to them in time. These are the ones that regularly show up in the classified for sale with "25 hrs TT".

We have always been advocates of "Fly Before You Buy" – a lesson we learned the hard way a few years ago!

Almost all the checklist of "things to do when buying an airplane" have lots of very important items on them. It is almost never worth skipping any of those items, but we think the one item to mark as "don't miss" is the pre-purchase inspection. It can save you an enormous amount of trouble and make buying a plane a more painless experience.

Aircraft Prices in 2007 – Where Are They Going?

By Adam Hunt (written in June 2007)

For Canadian aircraft buyers the short answer, for both new and used aircraft, is "down". This is good news if you are in the market for an aircraft, but bad news if you are selling one.

What is going on here? The answer is that, like it or not, all aircraft are priced in US dollars and the Canadian dollar has made strong gains over the US dollar in recent weeks, gaining 5% in the last two weeks of May 2007 alone. As of June 1st the Canadian dollar was trading at US\$1.0614, a rate not seen since the summer of 1977. This is a large change from the Canadian dollar's low point in early 2002, when it took Cdn\$1.6183 to buy a US dollar. This represents a 35% drop in



value for the US dollar and the same for aircraft prices.

Most of the world's aircraft are made in the USA. Aircraft parts and raw materials are also made in the USA. Free trade and easy import procedures mean that there is one unified market in new and used aircraft in North America and the larger volumes of the US market set the prices.

Recently most of the closing of the difference in the values has been driven by the strengthening Canadian dollar, bolstered by strong commodity and energy markets, as Canada sells more oil and gas to the US. Canadian mergers and acquisitions have also strengthened the economy and with falling unemployment and a strong housing market there are many signs that the Canadian economy is getting stronger and that the Canadian dollar will make even further gains against the US currency.

CIBC World Markets chief economist Jeff Rubin and National Bank Financial chief economist Clement Gignac both publicly predicted in late May that we will have a par dollar in the near future, perhaps as early as the first quarter of 2008.

The risk of federal government intervention to hold the dollar down to preserve manufacturing jobs seems unlikely. On May 31, 2007 Prime Minister Harper, an economist himself, indicated the government would let the dollar find its own level saying that holding it down, even to preserve export manufacturing jobs would be a "huge mistake".

The Bank of Canada has signaled, that it will shortly raise interest rates to control the core inflation numbers which have been running consistently above the central bank's targets. Higher interest rates will probably result in a higher dollar as investment increases as a result.

There have been some changes in aircraft values outside the exchange rate issue. There are now many new models of glass-cockpit equipped four-seater aircraft on the market in significant numbers. US market demand for older, used, four seat light aircraft that do not have glass cockpits has fallen as a result and prices for these have cooled.

For example a typical older four-seater, a 1960 Cessna 172 with good paint and interior and a mid-time engine has a Bluebook value of Cdn\$25,900 today.

A similar effect is being seen in older two-seaters that are over 1320 lbs gross weight and thus do not qualify to be flown with a Sport Pilot Certificate in the USA. Demand for Sport Pilot qualified aircraft remains strong, however, holding values on older Cubs and similar aircraft up.

A typical two-seater that is too heavy for US Sport Pilots, the 1978 Piper PA-38-112 Tomahawk, with the same good paint and interior and a mid-time engine comes out at Cdn\$12,700. These values are down dramatically over the 2002 peak. So what does this all mean for the Canadian aircraft buyer?

It adds up to a very good time to buy a new or used aircraft. The aircraft itself will cost less than



even a few weeks ago. The airframe and engine parts, likely ordered from the USA, will also cost less, when you need them. Only European aircraft and parts are steady in value, as the Euro has remained strong against the Canadian dollar. As a bonus, falling aircraft values means that hull insurance will also cost less, as you won't need to buy as much of it for a lower value aircraft.

One of the effects of the recently falling US dollar is that many Canadian aircraft sellers have not kept up with economic developments and lowered their prices accordingly in recent weeks. As a result many Canadian asking prices are too high. This is why record numbers of aircraft are being imported from the USA, driving up the Canadian Civil Aircraft Register. If you find domestic offerings overpriced then a look at the US market may be in order.

All in all if you have been waiting to buy a new or used aircraft then 2007 will be a great year to do so. Values are at record lows and there are bargains out there in both the US and here in Canada. The US market in particular is a good place to find aircraft to buy as the selling prices haven't changed much.

If you are selling an aircraft you will have to look hard at the value you can get for it. Given the loss of 35% of its price in the last couple of years and future projections from the bank economists, it may make more sense to hang onto it and fly it. If you do decide to sell it, make sure that your asking price is realistic or else you may spend a lot of money on advertising for little result.

Understanding Aviation Insurance

by Herb Cunningham, COPA Insurance Committee Chairman

Understanding insurance coverage available to aircraft owners and pilots is not very difficult but every year COPA members and others who thought they had the proper insurance coverage find out they did not. For this reason, we will outline the types of aviation insurance available and the insurance companies that provide coverage in Canada.

The coverage provided by insurance companies is similar but they are by no means identical. Some have broader coverage than others, some are more user friendly than others and some write directly while others use the services of insurance brokers.

Types of Coverage Available

1. Public Liability Insurance (also named Third Party Liability)

This insurance is mandatory because it is required by the Canadian Aviation Regulations. It protects the owner and operator of the aircraft if the aircraft causes damage to persons or property. It does not provide any protection for passengers in the aircraft. For example, if



you taxi into another aircraft or have a forced landing and damage a building or a farmer's crop, your liability insurance will protect you if you are at fault. Normally an insurance company will compensate the victims for their damage but occasionally, if a settlement cannot be reached, a court will decide on liability and the amount of damages.

2. Passenger Liability

This insurance is not mandatory unless you are operating a commercial air service or are operating an aircraft with a takeoff weight exceeding 5,000 lbs however highly recommended. It protects the owner and operator of the aircraft if they cause death or injury to a passenger on the aircraft, including family members. The owner decides how many passenger seats to insure. If you have a four-place aircraft and remove the back seats you would only have to insure one passenger seat. Some feel this insurance should be mandatory. It can be argued that there is much more potential for a passenger to be injured or killed than there is for the aircraft to cause damage to something or someone on the ground. Most Insurance Companies require their policyholders to carry passenger liability.

3. Combined Single Limit (CSL)

A CSL policy combines public liability and passenger liability into one coverage with a maximum limit of exposure specified in the policy. For example, if you have a one-million dollar CSL policy, your insurance company will pay up to one million dollars if you are held legally responsible for damage to the property of others or injury to the passengers that are on board your aircraft. CSL is a popular type of coverage and is readily available by most insurers.

It is important for all pilots to realize they will have to defend themselves from claims brought against them by others (frivolous or not) and that all three insurance coverage types outlined above will pay the legal costs to defend such actions.

It is equally important to understand that none of the above coverage compensates the pilot or their family in any way if the pilot is killed or injured while operating the aircraft.

4. Passenger Accident Coverage

This covers passengers who would otherwise have to sue you to collect damages although some policies limit the coverage to death and/or dismemberment. Check the policy to see if it covers family members. This isn't a standard coverage in Canada. Normally what you will see is Immediate First Aid expenses.

5. Hull Coverage

Hull coverage for an aircraft (mandatory if the aircraft is financed or pledged as security) is much the same as comprehensive and collision coverage for your automobile. There are three types of coverage available:



a. Ground Risk Only

Ground risk coverage protects your airplane while it is on the ground or in a hangar. The main coverage is for fire, theft, windstorm, hail, vandalism and other unforeseen events such as cattle, wild animals or mudslides in the mountains damaging your aircraft. Coverage is not provided if you have started the engine or are taxiing your aircraft. (I don't know of any policy in Canada today that is written on this basis anymore).

b. Hull "All Risks" Ground (not in motion)

This coverage applies to "All Risks" of physical loss or damage to your aircraft occurring while the aircraft (fixed wing or rotary wing) is on the ground or moored not-in-motion and while it is being transported by another vehicle provided the aircraft is not being operated under its own power or by the momentum generated by its power. Any loss or damage occurring while the aircraft is in motion under its own power or by momentum generated by its own power, is not covered.

c. Taxiing Coverage

Taxiing insurance includes ground risk and also protects your aircraft when it is taxiing or moving to the takeoff position and resumes when you have finished the landing roll and are taxiing back to the tie-down. It is not in effect as soon as you start your takeoff roll and it does not come back into effect until you have finished the landing roll. This is not a popular type of insurance since arguments may arise as to whether the aircraft was taxiing, taking off or landing when the accident occurred. Consider the small additional cost to purchase in-flight coverage.

d. In-flight Coverage

In-flight coverage protects the aircraft on the ground, taxiing and taking off, landing and flying. This is a popular type of protection, especially if the aircraft has a higher value and is similar to collision coverage on your automobile. A deductible will apply to most hull claims and generally is a fixed amount that has little if any effect on the rate unless the aircraft has a very high hull value. The premium is calculated as a percentage of the insured value and usually takes the pilot's experience into account. Sometimes a disappearing deductible can be arranged in the event that the aircraft is damaged beyond repair.

Who is Allowed to Fly Your Aircraft?

Most aviation insurance policies are written to protect a specific aircraft. The policy will protect the owner of the aircraft and the person flying it, if it is not the owner, as long as the pilot is named on the insurance policy. In addition, many insurance companies will automatically provide coverage for instructors for the purpose of providing instruction or upgrading to named pilots (excluding ab initio). And in the case of the COPA Insurance Plan, a Transport Canada approved AME is approved for test flights and ferry flights to and from maintenance, subject to being properly qualified to fly the aircraft.



Remember that if a person is not named on the policy and is flying your aircraft with your permission then not only is that person not protected by your policy, you will not be protected either. There may be good reasons to allow a qualified pilot to use your aircraft but prearrange it with your insurance company before something happens. It is usually too late afterwards.

What Value Should I Place on My Aircraft?

The value that you insure your aircraft for is usually an "Agreed Value". This means the insurance company agrees your aircraft is worth the amount you have chosen and will pay that amount less your deductible in case of a total loss. The best advice is to insure for replacement value or the price you would accept if you decided to sell your aircraft.

Underinsuring your aircraft creates problems if you have an accident. If the cost of repairs, including taxes, approaches the insured value, then some insurance companies will declare the aircraft a total loss and then sell the salvage. You will be paid the amount specified in your policy less your deductible but this will not be enough to replace the aircraft. Insurance policy wordings differ but if your aircraft is insured for \$50,000 and it will cost \$40,000 to repair it and the salvage value is \$20,000, then you could lose your aircraft depending on which company insures you.

The amount of hull coverage should always be increased if the aircraft has been upgraded by adding an expensive avionics package, new paint or interior, or an overhauled engine.

What You Need to Know About Aircraft Brokers and Dealers

By Garth Wallace

Aircraft brokers know the market, what is available and how much aircraft are currently worth.

Brokers fit the buyer to the aircraft. They are knowledgeable about aircraft performance and have a good idea of what it costs to operate different aircraft in their area. They know what problems to look for that are typical to each aircraft type.

Brokers do the leg work, too. They can make the arrangements for:

- the buyer to see the aircraft.
- a mechanic's pre-purchase inspection.
- a demonstration flight with a pilot who knows the aircraft type.

Brokers often know the history of an aircraft in advance. They may have sold it before. They have the forms available for a conditional sales agreement, bill of sale and change of

registration. Brokers can appraise aircraft and help negotiate the price. They can hold a deposit until the sale is completed for the benefit and protection of both buyer and seller and will return deposits in the event a sale is not completed although they should be entitled to retain their expenses related to the sale.

Brokers can help steer you through the sales tax issues. When the decision to purchase is made, brokers can arrange financing, insurance, delivery, storage, maintenance, upgrades and flight training.

Other Things to Know about Brokers

Brokers work for a commission from the seller or a fee from a buyer. They will not guarantee the aircraft. They sell used aircraft as is, where it is. It is ultimately the purchaser's responsibility to ensure the aircraft is airworthy, clear of liens, etc.

Brokers often do not have an exclusive contract with the aircraft seller. They usually do not have commission sharing arrangements with other brokers and they only receive a commission if they are directly involved in the sale of an aircraft. Find a broker you like and stick with him/her during your hunt for the right aircraft.

How to Choose an Aircraft Broker

The easiest way to find an experienced broker is to read the advertisements in national aviation publications. Ask brokers for the name and contact of several recent aircraft buyers they have served. Call these references and ask if they would use the broker again. COPA does not rate, recommend or warranty brokers.

Used Aircraft Dealers

There are a few used aircraft dealers in Canada. These dealers are aircraft sales outlets that own the aircraft they are selling. These dealers are usually brokers as well and sometimes are new aircraft distributors. Of course, they usually will be motivated to sell the aircraft they have in inventory. Keep in mind that they must collect PST and GST or HST on their sales.

Aircraft dealers take trade-ins. In this case, the GST or HST charged is on the difference between the trade-in and the aircraft purchased.



Part III- Forms

Partnership Agreement Sample #1

The following is a guide only and does not constitute a legal document. You are advised to seek legal advice.

The following is one detailed sample of a Partnership Agreement for joint ownership of an aircraft. Not all of the elements apply to all situations. The important ingredients of any partnership are the people, not the agreement. Choose carefully, pull your weight and enjoy an economical way to own an aircraft. There is a second <u>Partnership Agreement</u> following this one, choose the elements which you find of most use in your situation.

- 1. Purpose
 - A. The parties hereto do hereby form a partnership, which shall be conducted for the purpose of acquiring an aircraft and flying the same for business and pleasure. The principal base of operation shall be determined by a majority of the partners.
 - B. The partnership shall commence on ______ and shall continue until terminated by mutual consent of the parties or by the provisions of this agreement.
- 2. Assets
 - A. The principal asset of the partnership is the aircraft. Other assets may include, but are not limited to, various joint bank accounts with all partners, miscellaneous supplies and equipment for partnership aircraft and other aircraft that the partners may unanimously agree to purchase.
- 3. Loans Against the Partnership Assets
 - A. The partnership may borrow money against the aircraft only if unanimous consent of the partners is given and all partners agree on the specifics of the loan, such as financial institution, interest rate and repayment plan.
 - B. When a loan has been obtained by the partnership, each partner shall pay such portion of any loan payment for which he is liable, when due and payable. If such payment is missed, the partner shall be deemed to be in default. The remaining partners may, if deemed expedient, cover the loan to protect their assets and the money so advanced, with interest, is a debt owed by the partner in default to the partners advancing the funds.
 - C. No partner, without the consent of all other partners, shall:

- a. Sell, assign, create a security interest in or pledge his interest in the partnership or its assets; or
- b. Borrow or lend money on behalf of the partnership, purchase any security or bond except for cash in full.

4. Insurance

- A. Aircraft Coverage
 - I. The partnership shall maintain liability coverage for the use of the aircraft in the amount of \$_____.
 - II. All aircraft owned by the partnership shall be insured for full hull value and for breach of ______ warranty at all times.
 - III. No partner shall fly any aircraft in such a way as to violate, jeopardize or void the insurance.
 - IV. Any increase in the insurance premium brought about in any manner by one of the partners ______ shall be born by the partner.
 - V. In the event of a claim that is honored by the insurance company, any deductible amount shall be paid by the partner giving rise to such claim.
- B. Life Insurance
 - The partnership shall procure policies of term life insurance naming the partnership as beneficiary for each partner in the amount of his respective capital share in the aircraft. Each partner shall be responsible for his or her premium.
 - II. All such policies and the proceeds received thereunder shall be held by the partnership in trust for the purposes of this agreement.
- 5. Indemnification
 - A. Each partner shall indemnify and hold harmless all other partners from and against all costs, charges and expenses that are incurred in or about any action, suit or proceeding that is brought, commenced or prosecuted against the partnership or the partner(s), for or in respect of any act or deed done by him in which the other partners had no part.



- B. While operating the aircraft, each partner shall be responsible to the partnership for damages occurring to the aircraft, other than damages covered by insurance.
- C. When any damage is discovered, the partnership shall be notified. If unreported, the partner who last operated the aircraft prior to the discovery shall be deemed responsible for such damage.
- D. Any disputes in the assessment or in the amount of damages shall be determined by the majority vote of the partners.
- 6. Operating Regulations
 - A. The aircraft shall be flown only in strict accordance with the rules and regulations promulgated by the Ministry of Transport, the Federal Aviation Administration and any other competent authority and the pilot's operating manual or flight manual of the aircraft.
 - B. A partner shall personally be present in every flight of the aircraft, unless the permission of a majority of the partnership is granted to allow a qualified non-partner to fly the aircraft.
 - C. No partner shall fly a partnership aircraft unless he or she is current, fit, qualified, insured and fully licensed to do so.
 - D. No partner shall fly any partnership aircraft into weather conditions for which he or she is not licensed.
 - E. No partner shall fly a partnership aircraft while under the influence of alcohol, any controlled substance, stimulant, depressant, decongestant or narcotic.
 - F. Each partner, prior to entering the U.S. with a partnership aircraft shall warn each and every passenger and crew member against transporting any narcotic or controlled substance, discovery of which may result in forfeiture of the aircraft to U.S. Customs.
 - G. Each partner shall make accurate logbook entries for all flights in which he or she functions as pilot-in-command.
 - H. If a partner is charged with an infraction against the air regulations or drug enforcement regulations by a government agency, he or she may be requested, in writing, to withdraw from the partnership by unanimous agreement of the remaining partners. Such withdrawal shall proceed as if the partner were in default.



7. Bookings

- A. Each partner shall have first right of access to the aircraft in accordance with his or her share of the capital value of the partnership, based upon a rotating schedule as agreed to by the partners from time to time.
- B. Except as agreed upon by the partners, no partner shall fly the aircraft more than 50 hours per month.
- C. A calendar shall be maintained in which all reservations shall be booked. This book shall be kept onboard the aircraft to which it applies.
- D. All flights requiring use of partnership aircraft for more than three consecutive days shall be booked as soon as possible to enable partners to plan around each other's requirements.
- E. Flights of more than two weeks duration shall not be booked without the consent of a majority of partners. Each partner shall endeavor to facilitate longer flights but shall also be considerate of fair usage of partnership aircraft by all partners.
- F. Booking a flight at least two months before the flight reserves the aircraft for the period stated, regardless of the length of a flight subsequently proposed by another partner and regardless of rotational priority.
- 8. Maintenance
 - A. All maintenance required by law shall be carried out so as to cause the least disruption of the enjoyment of the aircraft by the partners.
 - B. A partnership aircraft in need of maintenance necessary to the safety of flight shall not be flown until such maintenance is done.
 - C. When any partnership aircraft is at its home base, two partners shall agree before maintenance is done on the aircraft, unless a second partner is unavailable within a reasonable time.
 - D. When any partnership aircraft is away from its home base, any partner may, at his or her own discretion, order any maintenance to be done to the aircraft that is deemed necessary to ensure the safety of the occupants or is deemed advisable for preventative maintenance purposes.
 - E. All maintenance performed on partnership aircraft shall be recorded in and paid for from the appropriate partnership account.



9. Management

- A. Each partner shall have a voice in the operation of the partnership. No less than a majority of the partnership shall be present at each regular or special meeting to constitute a legal meeting and for the continuance of the affairs of the partnership.
- B. Except as provided in this agreement, all decisions of the partnership's business and the sale of partnership assets shall be made by a majority vote of the partners of the partnership. Each partner shall have one (1) vote regardless of the size of his or her respective capital account.
- C. In the instance where the partnership consists of two partners or a quorum of partners is an even number and a tie exists on an issue requiring a majority vote, the partners may appoint an arbitrator who is acceptable to all parties to settle the vote.
- D. A secretary shall be elected by a majority of the partners. The secretary shall have physical possession of the books and records of the partnership and shall give such notices to the partners as may, from time to time, be required or deemed advisable, and shall perform the necessary ministerial functions of the partnership. Securities, bills of sales or any other documents evidencing ownership of the aircraft held by the partnership and either registered or recorded in such name, shall be in the primary custody of the secretary.
- E. Regular meetings of the partnership shall be held at least one time each year or more often as determined by the partnership. Notice of the time and place of each regular meeting shall be given by the secretary to each partner at least one (1) week before such meeting. Special meetings may be called by the secretary on such notice as he/she may determine.
- 10. Partnership Accounts and Records
 - A. Adequate accounting records of all partnership business shall be kept and these shall be open to inspection by any of the partners at all reasonable times. The partners shall appoint one person to be responsible for accounting.
 - B. A chequing account may be opened in the names of all partners, any two (2) of which must sign for withdrawal or upon any cheque. The partnership, if it is needed, may open a savings account. In such event, the savings account may be opened with the names of all partners, any two (2) of which must sign for any withdrawal.



11. Capital Account

- A. The contribution by each partner of either cash or equity to the capital of the partnership shall constitute that partner's share of the partnership.
- B. An individual capital account shall be maintained for each partner. The capital account shall consist of each partner's initial capital contribution, increased or decreased (as the case may be) on any valuation date for any increase or decrease in the net value of the partnership assets, and increased or decreased for his or her participation (or lack thereof) in any capital improvements.
- C. The net value of partnership assets shall be determined at least once each year, such date to be known as the valuation date. Adjustments to the capital account of each partner shall be made regularly at the end of each valuation date on the basis of the ratios of the respective capital accounts on that date.
- D. Any partner or combination of partners may make an improvement to the aircraft or its equipment with the majority consent of the partnership. In the event that one or more of the partners do not agree to pay their share of the capital improvement consented to by the majority, then the aircraft shall be appraised and the capital accounts adjusted accordingly. The cost of the improvement is then added to the capital account of the partners paying for the improvement and the shares of the partnership are adjusted accordingly.
- E. An hourly sum, established from time to time by dividing the anticipated cost of airframe, engine, propeller, landing gear and other major component overhaul by the number of hours between overhaul, will be charged against the capital account of the partner operating the aircraft. The partnership may elect to charge each flying partner this sum or any portion if the majority elects to accumulate an overhaul reserve.
- F. If overhaul is required for any major component before sufficient funds have accumulated in the overhaul reserves to cover the cost, the shortfall shall be divided among the partners in accordance with their capital share of the partnership.

12. Fixed Expense Account

A. The partnership shall establish and maintain an accounting of all fixed expenses including, but not limited to, tie-down fees, installment payments on the aircraft, taxes and insurance.

- B. Each partner shall make payments to the fixed cost account of the following amounts, regardless of the individual amount of time flown:
 - I. An equal share of the theoretical insurance premium for the partner who is the least costly to insure, plus his or her share, if any, of the remaining insurance premium.
 - II. Any portion of the insurance premium attributable to a previous claim shall be paid by the partner responsible and the above formula then applied to the balance of the premium.
 - III. A share of the installment payment on the aircraft in accordance with each partner's original capital share.
 - IV. An equal share of the home base storage and tie-down fees.
 - V. A share in proportion to his or her capital account of any tax or levy set against the aircraft or partnership.
- 13. Maintenance Account
 - A. Each partner agrees to pay a share of the maintenance expense in proportion to the individual use of the aircraft.
 - B. Once each year the total maintenance expenses of the partnership will be divided by the total hours flown since the partnership was formed to arrive at a maintenance cost per hour. Each partner's maintenance account will be adjusted to reflect the overall proportion of time flown and maintenance costs.

14. Direct Expenses

- A. Any partner while operating the aircraft shall be responsible for the cost of fuel and oil of the aircraft, and, unless otherwise agreed to by a majority of partners, shall leave the aircraft full of fuel.
- B. Each partner while operating the aircraft agrees to pay all landing, parking and hangarage fees that may be assessed against the aircraft throughout the flight.

15. Contributions and Assessments

A. Upon the vote of no less than a majority of the partnership, periodic assessments may be made against each partner for payment of capital expenses, fixed expenses,



maintenance expenses or for such purpose as the partnership shall determine. No assessment shall exceed the capital account value of the partner being assessed.

- B. Each assessment shall be payable on the date of assessment made.
- C. No partner shall be permitted to contribute personal services or property other than cash or equity in an aircraft for the purposes of paying the initial capital contribution. No partner shall contribute other than cash for payment of fixed expense assessments.
- 16. Arrears and Default
 - A. Any partner who is assessed and whose payment has not been received within 15 days is deemed to be in arrears and shall not fly the aircraft until the assessment is paid.
 - B. Any arrears in the payment of assessments which exceed 30 days shall be repaid to the partnership by the partner in arrears at an interest rate of ten per cent (10 per cent) per month.
 - C. In the event a partner is more than sixty (60) days in arrears, that partner is deemed to be in default and the buy-out provision herein shall apply.
- 17. Sale of Partnership Shares and Assets
 - A. To the Partnership or a Partner
 - I. The partnership shall have first option to purchase the withdrawing partner's capital account. If the partnership does not choose to purchase the capital account of the withdrawing partner, then in such event, any one (1) or more other partners may purchase the withdrawing partner's capital account. The amount for the buy-out shall be paid in cash and shall be equal to the value of the withdrawing partner's capital account, calculated as his or her share of the partnership after valuation.
 - II. The partnership, or any other purchasing partner, as the case may be, shall have the right to pay the buy-out price within thirty (30) days unless otherwise agreed, without interest thereon. If neither the partnership nor any partner or partners exercise the option to purchase herein created, the withdrawing partner shall have the right to offer his or her share to a third party as provided for herein.



- B. By Substitution
 - Provided that he/she owes no money to the partnership, any partner may withdraw from the partnership by substitution, that is by selling his/her interest in the partnership to a new partner acceptable to the remaining partners.
 - II. The withdrawing partner may ask any price for his or her share of the partnership, however, the new partner receives only the balance of the withdrawing partner's capital account.
 - III. The partner leaving the partnership divests him or herself of all interest in the partnership. After the sale of the withdrawing partner's capital account, the partner leaving the partnership remains liable for any debt due the partnership arising from this agreement except for those liabilities assumed by the new partner.
 - IV. The new partner pays the costs of changing the registration of the aircraft and is liable for any sales taxes that may arise from the transaction.
- C. By Liquidation
 - I. The partnership may be dissolved and terminated upon the vote or agreement of a majority of the partners.
 - II. Upon any such dissolution and termination, the partners shall promptly liquidate the affairs of the partnership by discharging all debts and liabilities of the partnership and by distributing all remaining assets to the partners or their representatives in the ratios of their respective capital accounts on the date of dissolution and termination.
- D. By Default of a Partner
 - I. A partner who is in default as defined above may be removed from the partnership.
 - II. If a majority of the partners not in default vote to remove the defaulting partner, written notice will be given to the defaulting partner before further action is taken.
 - III. In the event the defaulting partner settles any outstanding account with the partnership within three business days of receipt of the notice, he or she will



no longer be considered in default and the rights and obligations as a partner will be fully restored. The partner who was in default shall pay all expenses to the other partners and the partnership as a result of his or her having been in default, together with a deposit equal to his or her share of the estimated fixed and maintenance expense account assessments for the next year.

- IV. If after three business days from the receipt of notice by the defaulting partner full payment has not been made, the remaining partners may buy or sell the defaulting partner's interest in the partnership at the current value of his or her capital account after valuation.
- V. All outstanding debts, including interest to the partners and partnership, all reasonable expenses incurred to sell the capital account and all penalties against the partnership brought about because of the defaulting of the partner shall be deducted from the proceeds of the sale and the balance given to the defaulting partner or held in trust for his or her account.
- E. By Death of a Partner or Partners
 - I. Upon the death of any partner, the partnership shall collect the proceeds of the policies insuring the life of the deceased partner and shall pay the value of the decedent's capital account after valuation and less any outstanding charges and less any expenses arising from the purchase to the legal representative of the decedent's estate within thirty (30) days after appointment of such legal representative and receipt of the insurance proceeds.
 - II. On the receipt of the purchase price, the legal representative shall transfer to the partnership the deceased partners' interest therein.
 - III. Should the value of the interest of the deceased partner exceed the proceeds of the insurance, the surviving partners will pay such excess to the estate of the decedent by a promissory note payable within six months.
 - IV. Should the insurance proceeds exceed the value of the deceased partner's interest in the partnership, such excess proceeds shall likewise be distributed to the legal representative of the estate of the deceased partner.
- F. Continuation

If the capital account of a withdrawing or deceased partner is purchased in accordance with this agreement, the partnership business shall not be terminated but shall continue, as of the



effective date of withdrawal, after an appropriate adjustment is made in the capital accounts of the remaining or surviving partners, as the case may be, in accordance with the provisions of this agreement.

18. Notices

A. Sole Contract

This agreement constitutes the entire and only contract between the parties hereto in respect of the aircraft and as of the first day of the term hereof. All other leases, contracts, understandings and agreements that may have existed between the parties hereto in respect thereof are hereby cancelled and annulled, saving and accepting any obligations previously accrued thereunder and outstanding. This agreement takes precedence over any other agreement prepared for filing, tax or registration purposes. This agreement shall not be amended, revised or altered except by writing validly signed on behalf of all parties hereto.

B. Time

Time is of the essence to this agreement.

C. Assignment

This agreement shall not be assigned, nor shall any sublease be entered into by a partner without the prior written consent of the partnership, which may be arbitrarily withheld.

D. Succession

This agreement shall ensure to the benefit of and be binding upon the parties hereto and their respective successors and permitted assigns.

E. Waiver

Any waiver by either party or any failure on its part to exercise its rights in respect of any breach of this agreement shall be limited to the particular instance and shall not extend to any other instance or matter under this agreement or in any way affect the validity hereof or otherwise affect any right or remedy of such party.

F. (Province) Contract

This agreement shall be interpreted and the rights and the liabilities of the parties determined in accordance with the laws of the province of

(Province).



G. Validity

If any provisions of this agreement are contrary to, prohibited by or held invalid under applicable laws or regulations of any jurisdiction in which it is sought to be enforced, then that provision shall be considered inapplicable and omitted but shall not invalidate the remaining provisions.

In witness whereof the parties hereto have set their hands and seals. Signed, sealed and delivered in the presence of:

Partner

___(1s)

_____(1s)

Partner

Partnership Agreement Sample #2

The following is a guide only and does not constitute a legal document. You are advised to seek legal advice.

THIS AGREEMENT made this Xth day of (month), 20XX BETWEEN:

FRED BLUE RON PINK BRIAN BROWN DOUG WHITE (herein after referred to as the "shareholders")

WHEREAS each of the shareholders owns an undivided one-quarter (¼) interest in XXX Aviation Ltd., which in turn is the sole owner of a 1976 Cessna model 177B aircraft, serial number 17712345, bearing the Canadian registration mark C-FXXX, hereinafter referred to as the "aircraft";

AND WHEREAS the shareholders hereto wish to define their rights and obligations with respect to the aircraft ownership upon such terms and in such manner as hereinafter set forth;

NOW THEREFORE THIS AGREEMENT WITNESSETH as follows:

1 Operation

1.1 General

- 1.1.1 The term "parties" shall be used hereinafter to refer to "shareholders" and "approved pilots".
- 1.1.2 The shareholders agree that with unanimous consent only, they may authorize a non-shareholder to operate the aircraft, and under such circumstances that person becomes an "approved pilot". An approved pilot assumes all responsibilities normally assumed by a shareholder with respect to acting in the capacity of pilot-in-command. Insurance for such "approved pilot(s)", either may be provided on the same policy as for the shareholders, or may be provided in a separate policy, providing coverage is at least equal to that of the shareholder's policy for the aircraft.
- 1.1.3 The parties agree that they shall insure the aircraft as set below, and not operate the aircraft in any manner contrary to law or the limitations set forth in the insurance policy. Each of the parties agrees to pay the full cost of any damages arising from his or her use of the aircraft including the deductible of the insurance and any expenses



not covered by the insurance policy.

- 1.1.4 The parties hereto agree that the aircraft shall be operated in accordance with the laws and regulations of Canada and any country or state wherein the aircraft is being operated and they will not use the aircraft for any improper purpose, it being understood and agreed that each of the parties shall be fully responsible for the replacement cost of the aircraft, all avionics and other equipment contained therein in the event that the same is impounded, seized, or encumbered by any duly constituted authority.
- 1.1.5 Each of the parties agrees that in the absence of such unanimous consent, as outlined in section 1.1.2, for "approved pilots", no one, other than themselves, a licensed flying instructor, a licensed aircraft maintenance engineer or designated flight test examiner, shall be entitled to operate the aircraft, except under exceptional circumstances. Exceptional circumstances would be a situation in which it was not possible to obtain approval from all other parties but in which a flight was of the utmost importance. For example, this might include a return flight after the approved pilot became incapacitated. If a flight is conducted under such circumstances, all parties shall be notified of the fact, and the circumstances surrounding such flight, at the earliest possible opportunity. Under no circumstances is a flight to be conducted for which there is no insurance coverage. Thus, if the flight was to be conducted under such exceptional circumstances, the replacement pilot would require his or her own insurance coverage, or special arrangements made with the shareholder's insurer. Notwithstanding, the party authorizing such use remains responsible for any damage or expenses arising from such use.

1.2 Initial Qualification of Shareholders as Pilots

- 1.2.1 Each of the parties agrees not to operate the aircraft as the PIC or as a trainee unless they possess a valid Private Pilot or better license. Further no party may operate the aircraft as PIC without one of the following:
 - 1.2.1.1 One hundred hours PIC or,
 - 1.2.1.2 Twenty-five (25) hours PIC on type (Cessna Cardinal C177) or
 - 1.2.1.3 A letter of recommendation from a qualified instructor and
 - 1.2.1.4 Having obtained a checkout on the aircraft from an experienced flight instructor

This requirement may be waived only with the unanimous consent of all shareholders.



1.2 Currency

Each of the parties agrees not to operate the aircraft as PIC unless they have flown the aircraft for at least 1 hour within the last 90 days and at least 10 hours within the preceding year, or have re-checked out on the aircraft with a qualified pilot. This requirement may be waived only with the unanimous consent of all shareholders.

1.3 Base of Operation & Associated Responsibilities

The parties agree that the aircraft shall be permanently based at a location to be agreed to and ratified on an annual basis. Each party further agrees to abide by such rules and regulations as may be a condition of mooring of the aircraft, for example, membership at a club where the aircraft is based.

1.4 Scheduling a Booking

Each of the parties will have the use of the aircraft at such time and in such manner as they shall, from time to time, agree, and they agree promptly to cancel any bookings which they have made as soon as they become aware that they do not intend to utilize the aircraft at the requested time. It also is agreed that each party will use their best efforts to return the aircraft to its base of operation by the end of the initially-requested booking, barring weather or mechanical difficulties. The parties also agree not to use the aircraft without making a prior booking unless such use will not interfere with another party's already arranged use. In default of agreement the parties will share the aircraft for one week commencing on Tuesday; thereafter the other parties shall have control of the use of the aircraft one week at-a-time on an alphabetical rotation basis from the initial one party, who will be decided by lot. The other parties my arrange for the use of the aircraft with the party who has control over its use during that week.

2 Maintenance

II.1 Repair

The parties agree to keep the aircraft in good repair as required by law, and to forthwith make any structural changes and modifications as required by law or by Transport Canada.

II.2 Maintenance Labour

The parties hereto agree that the maintenance labour on the aircraft shall be performed, where possible, in exchange for flying time by a licensed aircraft maintenance engineer (AME). The use of such services shall be approved by all of the parties and the number of hours of maintenance expected in return for each hour of flying time on the aircraft shall be determined on an annual basis. The AME shall be responsible for the cost of the fuel and oil used during such flights, and any other expenses usually considered the responsibility of the pilot-in-command.



3 Accidents & Insurance

3.1 Insurer

The parties hereto agree that they shall insure the aircraft with an insurer mutually agreeable to each of them; they shall carry hull insurance in an amount equal to the expected full replacement cost of both hull and avionics and shall carry third-party liability insurance and passenger liability insurance. The full replacement cost of the hull and avionics, and the single limit amount of liability insurance shall be determined by all of the parties on an annual basis. The equally shared cost of insurance shall be based upon the party hereto presenting the best risk; higher rates for insurance shall be borne by the party or parties causing such increase, whether by reason of number of flying hours or by reason of being responsible for an accident resulting in an increase in insurance rates.

3.2 Damage By A Responsible Party

In the event that any one of the parties shall damage the aircraft, or cause it to be lost, seized or impounded, then the party so responsible for the damage or loss, shall have the option of paying for the damage, or, for paying for the deductible amount of the insurance policy in force and the increase in rates resulting therefrom, or, if the aircraft shall be damaged or lost as a result of an event for which no insurance is carried, then the party responsible shall pay the cost of the repair and/or replacement of the aircraft. In no event shall any one of the parties be responsible for consequential damages or for loss of use of the aircraft.

3.3 Death of a Responsible Party

In the event that the responsible party dies, any proceeds of the insurance shall be divided equally between the parties, the deceased party to bear the cost of the deductible.

4 Finances & Expenses

4.1 Meaning of Terms

For the purposes of this agreement:

- IV.1.1 the term "maintenance costs" shall refer to parts, oil, maintenance, repairs, 100 hour inspections, engine and propeller overhauls, avionics maintenance and repairs, and such other costs and charges relating to the operation of the aircraft as the parties hereto shall, from time-to-time agree, but shall not include fuel, tie down and hangarage, external heat, maps and charts and association memberships and dues; nor include the fixed costs as described below;
- IV.1.2 the term "fixed costs" shall include: insurance, tie-down and hangarage at the base of operation, certificates of airworthiness and additions to equipment or airframe and such other costs and charges relating to the ownership of the aircraft, as the parties heretofore shall from time-to-time agree.
- IV.1.3 A "flying hour" shall mean the time in the air from take-off to landing, but shall not include ground running time.

IV.2 Encumbrances

Each of the parties agrees not to encumber their shares of the corporation by any lien or encumbrance without the unanimous approval in writing of the other parties.

IV.3 Operating Costs Payment And Bank Account

The parties hereto will maintain a bank account from which all costs pertaining to the ownership and operation of the aircraft shall be paid. The "fixed costs", as defined in paragraph 4.1.2., shall be divided equally among the shareholders. Additionally, each party shall contribute an amount, to be determined on an annual basis, for each "flying hour" as a reserve from which all "maintenance costs" shall be paid. Each party will be billed for such contribution on a quarterly basis, or as necessary, and payment shall be due and payable no later than 10 days after billing. Default in making payments as aforesaid shall result in the termination of such defaulting party's right to fly the aircraft until arrears, together with interest thereon at a rate of 1.5 per cent per month, shall be paid into the bank account. NSF cheques received will cause the culprit to be accessed and responsible for an additional fee of \$25.00.

IV.4 Long Term Default of Payment

In addition to 4.3 above, if a party to this agreement defaults in making full payment for a period greater than 180 days, the other parties shall be entitled to purchase the defaulter's

shares at a price equal to the last sale price of an equivalent block of shares sold. Alternately if year has passed since the last sale of an equivalent number of shares, the price shall be determined in accordance with section 5.1.4

5 Sales of Shares

5.1 Wishing To Sell

In the event that any of the shareholders wishes to sell his or her block of shares in the corporation, she or he, hereinafter referred to as the "vendor", shall so notify the others of them, hereinafter referred to as the "others", whereupon the following rules shall apply:

- 5.1.1 the vendor shall advise the others of his or her desired selling price for his or her block of shares;
- 5.1.2 forthwith upon being advised of the price, the others shall have a ten (10) day option to purchase the vendor's block of shares at that price or a price agreed to upon by the parties. If the option to purchase is not exercised within the time herein limited, it shall be deemed to have been rejected by them;
- 5.1.3 the vendor then may sell his block of shares to another party, providing the party will agree to the terms of this agreement, is satisfactory to the others and will affix his or her hand and seal thereto. The vendor may not divide his or her block of shares;
- 5.1.4 in the event the others are not satisfied with the above-mentioned another party, the vendor may at his option find another buyer acceptable to the others, or failing agreement, the parties shall agree upon an appraiser who may be a principle of a franchised Cessna dealer, hereinafter referred to as an "appraiser", or, in default of agreement, an appraiser shall be appointed by the vendor and an appraiser shall be appointed by the others; the appraisal shall be based on the fair market value and shall be as determined by the single appraiser, or, shall be the arithmetic mean of the two appraisals aforesaid. Forthwith upon determination of the appraisal, the others shall purchase the vendor's share at the lesser of the appraised value or the vendor's price;
- 5.1.5 Should the vendor at any time decide upon, or agree upon with a prospective purchaser, a revised selling price, the others shall have a ten (10) day option to purchase as set forth in paragraph 5.1.2 and the procedure set forth in paragraphs 5.1.3 and 5.1.4 shall be followed.
- 5.1.6 Upon sale and transfer of previously mentioned shares by the vendor to the buyer, the others hereto agree to affix their signature to a revised version of this agreement within fifteen (15) days, indicating the buyer as a shareholder.
- 5.1.7 Prior to sale and transfer of previously mentioned shares by the vendor to the buyer,



the buyer shall affix their signature to a revised version of this agreement, indicating the buyer as a shareholder, and amendments as seen fit by the shareholders and buyer jointly.

- 5.1.8 In the event that the buyer does not possess a valid a private pilot (or better) license at the time of sale, then as a condition of sale, the buyer within the subsequent 18 months from date of sale shall either:
 - obtain the qualification listed in the preceding section 1.2, or
 - resell his ownership to another party, or

Resell his ownership to the remaining shareholders at the original buying price.

6 General

6.1 Death of Shareholder

In the event that one of the shareholders dies, the remaining shareholders agree to purchase, and the deceased shareholder's estate shall be bound to sell, the deceased shareholder's shares in the corporation within one hundred and twenty (120) days of the death of the shareholder. The amount paid to the estate shall be fixed and shall be calculated as follows:

- one quarter (1/4) of the aggregate value of the aircraft plus,
- one quarter (1/4) of any other assets of the corporation, including funds in the bank account, considered only as maintenance performed on the aircraft, less
- one thousand dollars (\$1,000.00).
- This amount shall be agreed to by the shareholders on an annual basis The remaining shareholders shall be unrestricted as to what they choose to do with the deceased shareholder's shares.

6.2 Shareholders are not Partners

Nothing herein contained shall be construed to constitute the shareholders as partners, it being agreed that this agreement shall cover the shared use of the aircraft only.

6.3 Notices

Any notice contemplated by the agreement shall be sufficiently given to each of the other parties and may be given by personal delivery or prepaid registered post, and if so posted, shall be deemed to have been received three (3) business days following the posting thereof.

6.4 Binding Upon

The agreement shall ensure to the benefit of and be binding upon the parties hereto, their respective helm, executors, administrators, successors and assigns.

6.5 Context

Where the text so requires, singular words shall include the plural and vice versa; masculine gender shall include the feminine and neuter genders and vice versa; and persons shall include firms and corporations and vice versa.

6.6 Amendments to agreement

No provision of this agreement may be amended other than by the unanimous agreement, except that provision 1.2. and 1.3. may be amended by a 75% majority agreement of the parties; any amendments to the agreement shall be in writing and attached to the agreement. In the event of the death of a shareholder, that person's vote shall not be counted.

IN WITNESS WHEREOF the said parties have here unto set their hands and seals. SIGNED, SEALED AND DELIVERED in the presence of:

FRED BLUE
RON PINK
BRIAN BROWN
DOUG WHITE

Attachment A to the Shareholders' Agreement

1. Aircraft Operation

This is an attachment to the Shareholders' Agreement concerning the operation of Cessna Cardinal C-FXXX, to be completed on an annual basis and attached to the Shareholders' Agreement. This requires a 75% majority of the shareholders, except that the liability insurance coverage may not be lowered from the previous year's coverage without unanimous consent.

1.1 Base of Operation:

It is agreed that the base of operation of the aircraft shall be THE CENTREVILLE FLYING CLUB.

1.2 Maintenance:

The agent used to conduct aircraft maintenance shall be the CENTREVILLE FLYING CLUB, except under circumstances where this is not possible or 75% of the shareholders agree that specific maintenance be conducted elsewhere. No consideration in the form of use of the aircraft shall be provided in exchange for such maintenance services in any case, without the consent of all shareholders.

1.3 Aircraft Value:

It is agreed that the value of the aircraft, including hull, engine, avionics and all items normally associated with the operation of the aircraft, but not including any maintenance funds, is valued at eighty thousand dollars (\$80,000.00).

1.4 Insurance:

The insurance agent for the aircraft shall be XYZ Insurance Company. The aircraft shall be insured for at least the stated value above, and liability insurance of five million dollars (\$5,000,000.00) shall be carried.

1.5 Expenses:

Each party shall contribute forty dollars (\$40.00) dry rate, for each "flying hour" as defined in the Shareholders' Agreement. Alternatively each party may contribute seventy-two dollars (\$72.00) wet rate (fuel included).

SIGNED and AGREED to:





FRED BLUE
RON PINK
BRIAN BROWN
DOUG WHITE



Attachment B to the Shareholders' Agreement

1. Purchase of share by Brian Brown

This agreement is an attachment to the Shareholders' Agreement concerning the purchase of a ¼ share of Cessna Cardinal II C-FXXX by Mr. Brian Brown from Mr. Kenneth Beige.

1.1 Conditions at Time of Sale

Whereas at the time of sale Mr. Brown did not possess a valid pilot license and whereas Mr. Brown does not currently meet the requirements for operation of the aircraft as defined by this agreement or the Canadian Aviation Regulations;

1.2 Special Dispensation to BuyBack

It is agreed that if requested, special dispensation shall be made by the other shareholders and they shall buy back said ¼ ownership from Mr. Brown within 18 months at the sale price of \$14,500.00 in the event that in the meantime Mr. Brown has not resold his ¼ ownership to another party.

2. Conditions of Buyback

In the event that:

1.1 Licence not Obtained

Mr. Brown has not obtained a private pilot license in the course of flight training due to medical disqualification, lack of flying ability or similar reason.

1.2 Aircraft not Devalued

The aircraft has not, by reason of accident, wear and tear, market-conditions or insurance payout been devalued below the said amount of \$14,500.00 for a ¼ ownership.

2. Conditions of Sale

Mr. Brown agrees that the conditions of sale listed in section 5.1.8 of this agreement apply to his purchase of ¼ ownership with the amount in question being \$14,500.00.

3. Attachment Binding on All Shareholders

It is agreed the provisions of this attachment to the shareholders agreement are binding on the present shareholders and all shall be bound equally by the offer of buyback present in section 1.1 of this attachment.



SIGNED and AGREED to:

FRED BLUE
RON PINK
BRIAN BROWN
DOUG WHITE



Attachment C to the Shareholders' Agreement

1. Purchase of Share

This agreement is an attachment to the Shareholders' Agreement concerning the purchase of a ¼ share of Cessna Cardinal II C-FXXX by Mr. Douglas White from Mr. Peter Green.

1.1 Evidence Required

Whereas at the time of sale Mr. White has agreed as condition of sale to provide proof of his financial status and Transport Canada flying record to the partners in XXX Aviation;

1.2 Period of Grace

It is agreed that the signing of this agreement is conditional upon Mr. White providing the agreed evidence of above section within 30 days.

2. Cancellation of Purchase

In the event that:

2.1 Non-conformance within the grace period.

If the required evidence is not provided within the specified period, then the conditions of sale shall be deemed as not having been met. Ownership shall revert to Peter Green, and the moneys exchanged as part of the sale shall be returned immediately.

2.2 Evidence deemed as insufficient or grounds for disallowing the sale

If upon presentation to the remaining partners the evidence is considered by all the remaining partners as grounds to disallow the sale, then Ownership shall revert to Peter Green, and the moneys exchanged as part of the sale shall be returned immediately. The agreement between the parties shall be dissolved and the preceding partnership agreement shall remain in force.

3. Attachment Binding on All Shareholders

It is agreed the provisions of this attachment to the shareholders agreement are binding on the present shareholders and all shall be bound equally by the conditions of sale present in this attachment.



SIGNED and AGREED to:

FRED BLUE
RON PINK
BRIAN BROWN
DOUG WHITE



Attachment D to the Shareholders' Agreement

1. Treasurer

This agreement is an attachment to the Shareholders' Agreement concerning the election of a Treasurer for XXX Aviation Ltd.

1.1 Treasurer Required and elected

Whereas the shareholders have agreed to elect a treasurer, and have elected Brian Brown (a shareholder) as that treasurer. The treasurer thus elected is empowered to collect from the shareholders and designated pilots, any fees, and costs incurred in the operation of the aircraft as determined by this agreement. The treasurer is also empowered to pay on behalf of XXX Aviation, all fees, charges and bills rightfully accrued by XXX Aviation. These charges may include such items as maintenance charges, parking fees, equipment purchases, installation fees, hangarage, towing, cleaning, painting, refurbishing and other like fees.

1.2 Business Bank Account

The shareholders have agreed that for the convenience of the treasurer and shareholders that a Business Bank Account shall be held by mbanx, with the treasurer as sole signing officer. The shareholders agree that this account shall be the sole repository of all funds held by XXX Aviation and shareholders have further agreed that the fees, charges, and costs of the operation of this account are to be paid from this account.

1.3 Ownership of Funds

The treasurer agrees that the funds held by and transferred to this designated Business Bank Account are the property of XXX Aviation, and are not the property of the treasurer. Consequently, the undersigned agrees to make only such regular disbursements and payments from this account as may be from time to time be agreed by the shareholders and under no circumstances whatsoever make any use of the funds for personal purposes.

Furthermore should a majority of the shareholders of XXX Aviation so require, the undersigned agrees to give up and return control of all funds held within a period of 7 days from the receiving of a signed direction to do so.

SIGNED and AGREED to:

BRIAN BROWN
- TREASURER, XXX AVIATION



1.4 Extraordinary Use of Account Funds

In the event that extraordinary use of XXX Aviation account funds is contemplated, such use will be made only after the following procedure is carried out:

- 1. All shareholders are informed in person or by telephone of the intended use.
- 2. A majority of the shareholders (including or excluding the treasurer) have agreed to the extraordinary use of funds.
- 3. A written, signed direction to release the funds has been received by the treasurer from all the advocating shareholders. (Such direction can be by fax on by paper).

1.5 Investment of Surplus Funds.

It is understood that a portion of the funds is intended for long term aircraft expenditures such as engine and propeller overhaul. This being the case, the treasurer is authorized on behalf of the corporation to designate a portion of the funds held to be invested with the aim of accruing a higher rate of return than may be otherwise available in the mbanx account. Such designation and investment is limited to only those funds which are not likely to be required within the following year. Investment made in this fashion shall be limited to fixed income instruments such as T-Bills, GICs, Government or Corporate Bonds and other similar instruments. In no case shall the treasurer bind any funds by investment in this fashion for a period longer than 1 year.

2. Attachment Binding on All Shareholders

It is agreed the provisions of this attachment to the shareholders agreement are binding on the present shareholders and all shall be bound equally by the conditions present in this attachment.

SIGNED and AGREED to:

FRED BLUE
RON PINK
BRIAN BROWN
DOUG WHITE





Offer to Purchase

The following is a guide only and does not constitute a legal document. You are advised to seek <u>legal advice</u>.

Offer to Purchase Agreement mad	de the	day of	, year _	/
between				
				(name[s])
of the city of	in the pro	vince (territory) of	
herein called the "vendor".				
and			(name[s]) of
the city of	in the provin	ce (territory) o	f	herein
called the "purchaser".				
Whereas:				
1. The vendor certifies that he/she	e has ownersh	ip, custody and	l control of ai	rcraft:
manufacturer	, model			,
serial number	, registra	ation		
herein called the "aircraft".				
2. The vendor agrees to sell the ai terms of this offer for the amount dollars).				

3. The purchaser agrees to purchase the aircraft "as is", "where is" and without warranty under the terms of this offer at the same price agreed above.

4. The vendor certifies that the aircraft is unencumbered by liens, loans, pledges, debt or any other obstruction to clear title transfer to the aircraft.

5. The purchaser hereby submits to the vendor or to his/her agent in trust, a deposit in the



amount \$ _____/00 (in Canadian dollars).

6. An undertaking will be made to close the purchase or sale of the aircraft by 24:00 on the _____ day of ______, year _____.

7. At the time set for the closing, the vendor shall deliver to the purchaser:

(a) a signed Bill of Sale for the aircraft

(b) the aircraft Certificate of Registration less the Notice of Change of Ownership

(c) the aircraft Certificate of Airworthiness and the Annual Airworthiness Inspection

(d) the aircraft Journey Log books

(e) the aircraft Weight and Balance Reports

(f) the aircraft Technical Log books, including the airframe, engine(s), propeller(s), and modifications log books.

(g) all other documents necessary or desirable in order to carry out the true intent of this agreement.

(h) all additional equipment agreed to here and listed below:

8. At the time set for closing, the purchaser shall deliver to the vendor in exchange for the items set out above:

(a) a certified cheque payable to the vendor for the full amount of the purchase price of the aircraft less the deposit.

9. If on the closing date the Vendor neglects or refuses to complete the transaction or does not comply with the procedures herein set out, the Purchaser has the right upon such default (without prejudice to any other rights that he/she may have), upon payment by him/her of the purchase price (plus or minus any adjustments herein provided) to the credit of the Vendor in any chartered bank in the city of ________ (or the solicitor for the Vendor in trust for, on behalf of, and in the name of the Vendor), to complete the transaction above. The Vendor hereby irrevocably constitutes the Purchaser his/her true and lawful attorney to complete said transaction and execute on behalf of the Vendor every document necessary or desirable in that behalf. (If there is more than one Vendor, this power of attorney shall apply to all vendors)

10. If on closing date the Purchaser neglects or refuses to complete the transaction, or does not comply with the procedures herein set out, the Vendor has the right upon such default to give to the Purchaser written notice of such default and to retain the purchasers deposit. At the time of such default, the Purchase Agreement shall be null and void.

11. The Vendor shall not enter into any other purchase agreement for the aircraft while this agreement is outstanding.

12. The parties shall not throughout the term of this agreement and until a valid sale of the aircraft is completed under this agreement do or cause or permit to be done anything to jeopardize the agreement.

13. Time shall be of the essence of this agreement and everything that relates thereto.

14. The parties agree to execute and deliver any documents necessary or desirable to carry out the true purpose and intent of this agreement.

15. This agreement shall be binding upon and enure to the benefit of the parties hereto and their respective heirs, executors, administrators and assigns.

IN WITNESS WHEREOF we have set our hands and seals this _____ day of

_____, year _____ SIGNED, SEALED AND DELIVERED

in the presence of:

witness (signature) Vendor (signature)

witness (signature) Purchaser (signature)



Aircraft Bill of Sale

In consideration of the sum of ______ the undersigned does hereby sell, grant, assign, transfer and deliver to the following described purchaser, his executors, administrators and assigns, all his right, title, interest, property, claim and demand whatsoever to the following described aircraft and equipment. The undersigned hereby covenants that the title to the described aircraft and equipment is free and clear of any and all liens or encumbrances of any nature whatsoever.

Purchaser's Name		
Address		
Aircraft:		
Manufacturer and Model		
TC Registration		_
Serial Number		
Equipment:		
Engine		
Radio		_
Miscellaneous		
Signed, sealed and delivered at	this	day of
, 20		
Seller's Name		
Seller's Address		
Signature of Witness		



Address of Witness

Seller's Signature _____ (Seal)

Note: This bill of sale is not to be used when possession of the aircraft or equipment is retained by the Seller.



Receipt for Aircraft Purchase

Date	_
Received from	
The sum of \$	/00
For aircraft:	
manufacturer	, model,
serial number	, registration
(signed)	(name - please print)

_