



Professional Pilot Career Information Brochure



**Job prospects, salary levels, career paths, prerequisites
and much more inside...**

Produced by the Air Transport Association of Canada

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Researching Pilot Careers & Training Programs

Forward

The Air Transport Association of Canada has prepared this document for individuals who aspire to pursue a career as a professional pilot. We hope it will provide you with timely accurate information that will assist you in your career planning.

A commercial pilot career is an exciting and challenging profession. Professional pilots are highly trained and entrusted with a great deal of responsibility.

You have chosen a great profession. The following information will provide you with accurate facts that will allow you to make an informed decision about your future aviation career. We want to wish you the best of luck in your career planning and we look forward to the possibility of seeing you in the skies. If you have any further questions, please do not hesitate to contact us at <http://www.atac.ca> or by emailing atac@atac.ca

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Introduction

In Canada last year the air industry transported close to 50 million people safely to their destination. The men and women who pioneered early flight would be in awe of the transformation our industry has undergone. Although technology has increased the speed and efficiency of flight, unparalleled safety has been achieved. The global air transport system is the safest mode of transportation.

Canadian pilots are highly trained and well respected throughout the world. We adhere to the highest standards in the industry. Our safety record is second to none. Canadian pilots can be found at the controls in virtually every nation world-wide. Canadian pilot licences are recognized world-wide for their high standards and Canada is a leading member of the International Civil Aviation Organization (ICAO), the industry's international regulatory agency.

Canada's aviation community is unique offering a full range of aviation opportunities. Whether you aspire to fly a commercial airliner, fly float planes to remote lakes in Northern Canada or help someone live their dream of flying for the first time, you will not be disappointed. Canadian pilots enjoy some of the most diverse terrain in the world with the Rocky Mountains, Pacific and Atlantic oceans, and high-density areas such as Toronto, Montreal and Vancouver, and the vast terrain of the Canadian North.

Canada is a great place to learn to fly. We offer a cost-effective training product that is respected world-wide. Students abroad travel thousands of miles to take advantage of the cost savings and our high training standards. A competitive Canadian dollar has made our country an attractive location due to the exchange rate. Canadian airspace is normally less congested than American or European alternatives. In addition, Canada's seasonal weather provides a great training environment and provides for valuable experience that other locations cannot offer. Canada has been long recognized by the United Nations as one of the most modern and safe societies in the world.

The Main Points

Canada is an excellent place to train due to its high training and safety standards, relatively low cost, and its seasonal weather offering a variety of training environments.

Job prospects for Canadian pilots

Historically, the aviation industry tends to be cyclical, and therefore so are job opportunities for pilots. The traditional hiring pattern saw mass hiring over a short time frame separated by periods of relatively little hiring. Hiring in the major airlines tended to pull everyone up a notch as the airlines pull from the regional airlines and the regional airlines pull from the flight instructor and smaller air taxi and charter ranks.

However this model has modified since 2000 and future looks bright. The “Human Resource Study of Commercial Pilots in Canada” completed by ATAC in 2001 reports that 2200 new pilot jobs will be created. Even more pilots will be required to replace pilots seeking foreign opportunities or retiring. The Follow Up Study, released in November 2003 confirmed these demographics as well as identifying new aviation growth areas such as smaller, modern turbo prop and jet aircraft serving high frequency regional markets. Along with the predictable retirement demographics, the phenomenon of the low cost carrier is also creating career opportunities in the aviation industry. Personnel expectation has also modified, with realization that viable career options now exist in aviation in all levels, not just the major airline option.

Early 2004 is showing increased demand for pilots and the forecasts for our sector are positive over the next number of years. Here are some of the highlights:

- The International Civil Aviation Organization (ICAO) predicts significant growth in world traffic, rising 4.6% in 2004 and 6.3% in 2005. Annual growth over the next 12 years is predicted to be 4.1%.
- The aging boomer population means that 1130 pilots, an unprecedented number, will retire over the next few years. Peak retirement in Canada will come in 2007.
- The Canadian Military is experiencing a shortage of pilots and is actively recruiting
- Canadian pilots are actively recruited overseas by airlines such as Cathay Pacific, Emirates and China Airlines due to our unparalleled reputation in the world aviation community
- This overseas ‘brain drain’ opens up further opportunities for jobs in Canada
- Domestically, Canadian passenger jet operators have placed orders for over 50 new jets, which will result in over 300 new pilot positions
- Smaller centres are being served by more efficient 19 seat aircraft
- Canadian military needs to recruit 300 pilots

Acquiring the training and entry level experience to move up to regional and international airlines takes about three to five years. Candidates who plan their training path and career goals and start their training now should be well positioned for peak hiring opportunities.

The Main Points

Opportunities are opening up due to growth in world traffic, Canada’s reputation abroad and the large number of pilot retirements over the next decade. Now is an excellent time to train for a pilot career.

Qualifications and Requirements for a Career as a Pilot

Age and licences

In Canada, to acquire a commercial licence you must be 18 years of age. Although there is no minimum age to start your flight training, you cannot acquire your private licence until you are 17 years old.

In order to fly professionally, an individual must acquire the various licences and ratings required by Transport Canada. Initially, all pilots must acquire their private pilot licence. The private pilot licence can be done at a flight school and usually takes at least several months to complete, depending on the student's level of dedication and ability. Acquiring the licence involves both in the aircraft training as well as courses in areas such as aerodynamics, meteorology, aircraft systems, air law and navigation. Once the student reaches a certain level of proficiency he or she will complete a flight test with a government inspector or representative to demonstrate their competence.

Every pilot flying for compensation must possess a commercial pilot licence. In addition, various other ratings and endorsements must be acquired to fly certain equipment. For instance, to fly a twin engine aircraft, a pilot must possess a multi-engine rating. To fly the aircraft in poor weather conditions, a pilot must hold an instrument rating. Captains on large aircraft must hold the Airline Transport Pilot Licence. These licences are issued based on flying experience, written exams and in some cases, displaying a level of proficiency during flight tests. To operate any multi-engine aircraft commercially pilots must be trained and examined to a certain standard on that aircraft regularly.

Medical Requirements

In order to fly professionally as a pilot in Canada you must acquire a Category 1 medical. This must be completed by a Transport Canada medical doctor called an Aviation Medical Examiner. The Examiner completes a thorough exam of the applicant including physical, auditory and visual tests. The candidate must also complete an electrocardiogram (ECG) examination and other tests including one for colour blindness. This medical standard must be maintained throughout your flying career and is tested annually or biannually depending on your age. Airlines and the military may have their own specific medical standards. For the Canadian medical standard, check the following website: <http://www.tc.gc.ca/CivilAviation/Cam/menu.htm>

Education

Soon, the minimum requirement to become a commercial pilot in Canada will be a Grade 12 Secondary School Certificate in Canada. It is not necessary to complete a Post Secondary School College Diploma or University Degree to acquire a commercial pilot licence and fly for a living. At present many Canadian pilot employers do not have specific requirements for post-secondary education. Flight schools, small charter operators and bush operators do not generally require candidates to hold higher degrees.

When considering a career as a pilot, keep in mind that physics is not a required subject for entry into the pilot profession. Some programs may have specific requirements for you to have completed a physics course; however there is no industry or regulatory requirement for physics. A strong background in mathematics will inevitably be an asset; but not completing physics in high school should not be a deterrent from you considering a career as a pilot.

Despite the fact that it is widely understood in the industry that post-secondary education is an asset and most major airlines do not specify a minimum post-secondary education; evidence indicates that the major airlines do show preference to candidates with higher education. The Canadian military has traditionally required its pilots to hold a university degree. Career flight instructors who hope to teach in college and university aviation programs are expected to hold university degrees.

The requirements for higher education will no doubt grow over the next few years. If you do not already have some college or university education, you would be well advised to make sure that you acquire some higher education along with your professional pilot qualifications. The requirements may go up between the time you start your training and the time you are applying for more senior positions.

The fact that you are demonstrating your ability to reason and absorb higher education is important to recruiters as it shows personal incentive and discipline regardless of what courses are taken. However, as the “Human Resource Study of the Commercial Pilot In Canada and the Follow Up 2003 Study clearly indicated, there is a trend to aviation subject specific curricula.. If you know that you want to end up in a certain niche in aviation, you might choose your subjects accordingly. For example, if management interests you, you might look for some business courses along with your pilot courses.

You should also note that Transport Canada requires individuals to have a strong command of written and spoken English. English is the primary international language of aviation. If you do not have a strong command of the English language you may require additional training or schooling in English prior to pursuing your career as a pilot.

The Main Points

You need a Category 1 medical and at least a commercial pilot licence to fly for compensation. A strong command of English is a necessity. Higher education makes you a more attractive candidate. Plan for the education requirements of five years down the road when you will be applying for more senior positions. Your personal preference is an acceptable guide to choosing your academic subjects apart from aviation courses.

Entry-level jobs

What are the entry-level jobs?

Think of your commercial pilot licence as the basic must-have qualification. Most of you will be taking advanced training such as a multi-engine rating, an instrument rating and perhaps an instructor rating or float endorsement.

You will probably graduate from a professional pilot program with under 300 flying hours. You are now qualified to work in entry-level pilot jobs, but usually it will be a few years before you are qualified for the higher-end pilot jobs.

Many pilots find their first job as a Flight Instructor. Other possibilities are as an air taxi pilot, or doing a range of general air services work such as banner towing, aerial surveys, traffic watch or sightseeing. These positions pay entry level salaries. However you can end up making a comfortable living at an aviation training unit or with an established local air services operator.

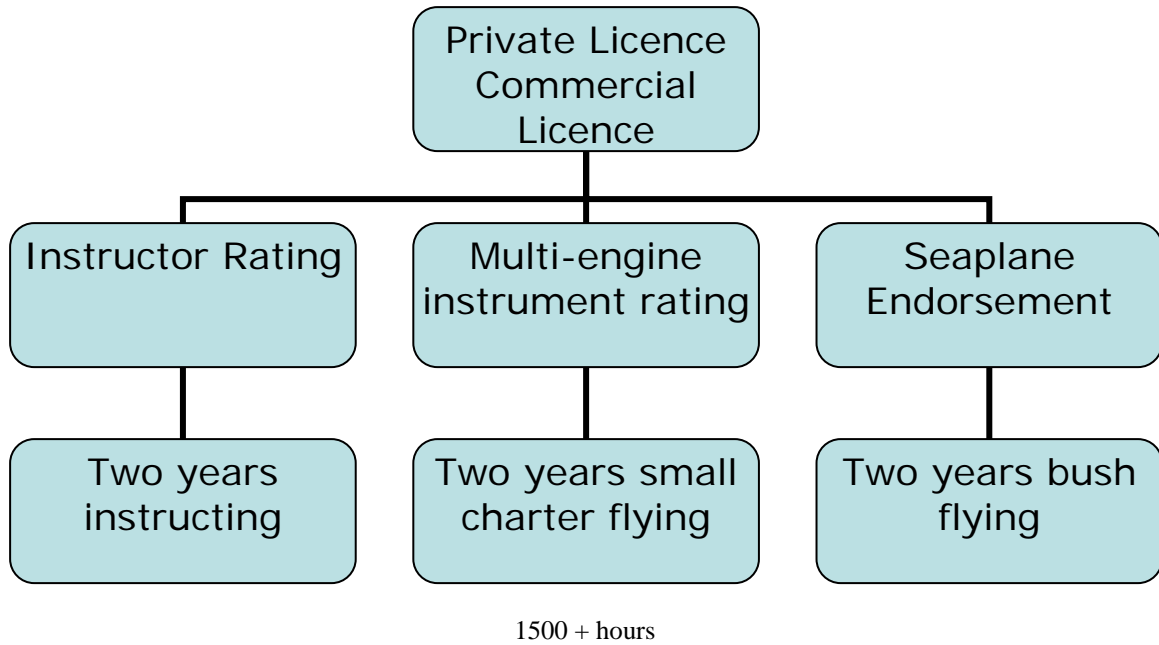
Consider a non-flying job in the aviation industry as your starting job. Many pilots got a start working on the ramp of an airport, dispatching aircraft at a flight school or loading baggage at the dock for a float operator. Other possibilities are teaching as a simulator instructor or teaching ground school at a flight school.

How do I get that first job?

- Work at your training in a professional manner. Your aviation reputation starts the day you walk into a flight school. Aviation industry networks are active and important. It is very easy for potential employers to find someone who knows about you as a student. They will be interested in how professionally you treated your training, whether you were prompt and well groomed, and how well you got on with people around you. Getting that first job starts the day you start your training program!
- Build your network from the day you start your training. Get to know people at your school, and stay in touch with fellow students. Your friends and colleagues in the business are a rich source of information about openings, qualifications, and introductions. You never know when the person who sat beside you in ground school will be the Chief Pilot of the operation you are applying to.
- Take any aviation-related job you can find as a student. Does your airport hire dispatchers, flight line personnel (people who greet customers and provide fuel and other support services for aircraft) or coffee shop or pilot supply shop help? These are perfect places to meet aviation business owners and managers informally, and keep up with the latest job possibilities.

Your career development goal as you work in your first job will likely be to work towards an Airline Transport Pilot Licence. This licence requires a minimum of 1500 hours flying time. During those early years you will be working to earn pilot-in-command time and experience on more sophisticated aircraft types.

Here is a career progression chart to help you visualize typical career paths.



The Main Points

Build your aviation network from the day you start your training. Even as a student, behave and present yourself professionally; your career is starting while you train.

Job descriptions and earnings

Aviation opportunities in Canada are extremely diverse due to a number of factors, including the varied climate and different geographical make-up of our country. Canadians probably enjoy one of the most unique aviation sectors with wide ranging opportunities for our pilots. Canada's north relies heavily on air transport to provide them with much needed supplies and support from the south. Canada's northern and rural communities receive medical support from Medevac aircraft on a daily basis. Canadian airlines are respected internationally and Canada's airlines have strong brand recognition abroad. With the diversity of our industry so is the opportunities for Canadian pilots. Below we have outlined some of the primary jobs that employ pilots in Canada, however this is only a glimpse into the many roles Canadian pilots perform on a daily basis.

Flight Instructor

Many pilots in aviation choose to pursue rewarding careers as flight instructors. A typical day for an instructor may involve one on one instruction to a student in either a classroom setting or in the aircraft. Instructors may also provide ground school instruction to a group of aspiring pilots in a classroom environment.

Flight Instructors must maintain a flight instructor rating. This involves an intensive training program involving classroom and in the aircraft training. Although instructor candidates receive training on how to fly the aircraft, the majority of the lessons focus on demonstration and teaching techniques. The flight instructor rating course is typically 6 weeks in duration of full time training followed by an assessment which is completed by a representative from Transport Canada. If the candidate successfully passes the flight test examination they are entitled to instruct other students under the supervision of a more qualified flight instructor.

Instructors typically commence their careers teaching ground school and flight instruction to private or recreational pilots. As they acquire hours and experience they progress to more advanced instruction including multi-engine and instrument flying. As well, instructors are promoted according to the amount of experience they gain and may eventually teach other pilots how to become instructors. Some highly qualified flight instructors eventually gain authority from Transport Canada to perform flight test evaluations on pilots acquiring their licences.

Wages for instructors are highly variable primarily based on instructional experience. As a newly licensed instructor, you can expect to be paid an hourly rate based upon a revenue activity such as flight or ground training. The average wage in Canada after 5 years is around \$25,000 annually although some instructors can earn over \$50,000 in the industry. A typical flight instructor starting out in the industry may only be employed on a part-time basis and income for a starting instructor can be as low as \$12,000 to \$15,000 annually.

Flight instructors must have good teaching abilities coupled with strong interpersonal and communication skills. They must be highly motivated and able to work well one on one as well as in front of groups of people. Instructors are required to be highly adaptable according to their student's ability and maintain a high level of knowledge and awareness of all aspects of flying. Not only must they maintain a strong knowledge base, their demonstration and flying skills must be at a high standard also. Public speaking and presentation skills are highly important skill sets for instructor pilots.

Licensing requirements for flight instructors include a flight instructor rating coupled with a minimum of a commercial licence. Many instructors have much higher qualifications, including a multi-engine and instrument rating coupled with post-secondary training including a diploma or degree.

Air Taxi/Charter/Corporate Pilot

A career as a charter or corporate pilot is an exciting and challenging opportunity. Charter flying they conduct is typically very dynamic and less routine than scheduled flying. Charter pilot positions vary greatly depending on the company and type of operation. Pilots may conduct flights carrying Medevac passengers to larger centres for emergency treatment, operate flights for business customers to meetings or haul important freight to a customer's destination. Flights may be scheduled weeks in advance or a customer may call up and want to depart in half an hour's time.

Flight may be within the local area or operated to foreign destinations overseas, depending on the type of flight operation. The latest corporate jets are found at the major city airports across the country, including Calgary and Edmonton, the financial centres of Toronto and Montreal, and the government centre of Ottawa.

Wages for charter pilots in Canada are based on the type of operation, equipment and company. Income is variable with a median wage being around \$40,000 with extremes as low as \$18,000 and the extreme high exceeding \$100,000 with some companies.

Charter pilots are highly adaptable and mobile individuals. Pilots operating corporate or charter flights must be willing to be away from home for several nights at a time and able to be called away on trips with relatively short notice. They must be problem solvers and able to adapt quickly to new situations. Charter flying requires a high level of autonomy and ability to demonstrate strong leadership skills.

Charter pilots must have a minimum of a commercial pilot licence and generally hold a minimum of a multi-engine and instrument rating.

Float Pilot/Outfitter

On Canada's coastal communities and lakes you will find a huge number of float and seaplanes. These aircraft have many roles in their regions including taking tourists to fishing camps, taking food and supplies to remote communities, passenger charter services, log inspections on the west coast, and the occasional Medevac trip flying a critical ill patient from a remote town to a large urban centre like Winnipeg, Vancouver, or Halifax. In the summer months fire bomber pilots provide aerial water bombing to fire plagued regions. Float Pilot work tends to be very seasonal although pilots on coastal communities, particularly in the Vancouver region work year round. In central and northern Canada the float season is relatively short spanning from May to September.

Float pilots normally acquire training at a float training school and are often enrolled in a float pilot program. These courses are offered where pilots complete most of their commercial pilot licence build up time on float aircraft. They graduate from the program with their float endorsement having acquired a number of hours on float aircraft. A number of schools offer

courses where the student ends up with 50 or 100 hours on floats. Most operators require a number of flight hours on float airplane for insurance purposes.

Students who graduate from a float program will commence working for an operator in a non-flying capacity. They often work the dock, fuelling and loading aircraft and assisting in the daily operation. Once the student has proven him or herself they will be promoted to a flying position. They may start out flying as the pilot in command on a small single engine aircraft such as a Cessna 172, or may start off as a first officer on a large twin engine airplane such as a twin otter.

Float pilots' average income after five year is between \$40,000 and \$45,000 per year. This work is often seasonal and can be earned in five or six months. Employment can be sporadic at times due to the seasonal nature of the industry. Experienced float pilots with a strong résumé tend to have greater ease acquiring jobs and can enjoy a good income with a strong resume.

Float pilots must be self-starters, and willing to operate alone. Often their work may take them to remote locations and as such they need to be self-reliant and adaptable. Float pilots commonly load and unload their aircraft and therefore must have the physical ability to lift heavy objects.

Regional or Major Airline Pilot

Airline pilots operate scheduled flights to destinations throughout the carrier's network. Scheduled trips may involve multiple destinations and may take the pilot away for several days on end. Pilots working for an international airline fly to foreign destinations and may be away from home for as many as seven consecutive days and operate only two long flights during that time. Pilots working for regional operators fly shorter routes however, and tend to do several take-offs and landings in one day. They may be away from their home base for just one day or several days on end.



Typically career paths to a major or regional carrier involve building several hours to qualify for the position. It may take several years to acquire the experience to be hired by a major or regional airline. Major airlines recruit their pilots from the military, regional airlines or other charter or corporate carriers. Regional airlines often recruit their pilots from charter or corporate flight departments. Airlines highly respect post secondary education, giving consideration to those possessing a degree or diploma. A pilot working for a major airline has an average income of around \$100,000 per annum while someone working for a regional carrier can expect to earn \$65,000 per year.

Airline pilots must have strong decision making and interpersonal skills. They must be willing and able to work in a team environment and work well with others, as their crew can be as large as 15 people.

Military Pilot

Military pilots perform various roles depending on their mission requirements. Pilots for the Canadian Forces may operate helicopters, transport aircraft and fighter jets. Helicopter pilots

provide logistical support, carry supplies or perform search and rescue duties. Fighter pilots are responsible for providing a defence role for our country. Pilots flying transport aircraft may carry freight and important logistical equipment to troops or those flying Hercules may provide search and rescue support.

Pilots in the Canadian Forces are officers and as such they recruit graduates from university programs once they have completed their degrees. Some non-degree candidates are accepted with or without previous flying experience and provided with flight training and a university education.

Pilots in the Canadian Forces earn \$65,000+ 5 years after they have completed their training. Officers are required to complete an obligation of 7 years service having completed the training provided by the military.

Helicopter Pilot

Helicopter pilots in Canada are kept busy in a number of roles. They may fly executives between downtown Vancouver, Victoria, and Seattle each day, help mining companies up north go to new sites looking for ore samples, transport oil crew workers between camps and provide Medevac flights straight to hospital landing pads. Some helicopter pilots are based in the large cities providing charter and schedule rotary wing flights. Other helicopter pilots are based in remote locations providing crew changes or heavy lifting support roles such as heli-logging.

Many rotary wing pilots acquire their fixed wing or aircraft licences first and then convert them to helicopter. Helicopter pilots normally acquire their commercial licence from a training school or through a full-time program. Upon graduation they will work as a first officer in a two crew operation or may start off directly as a Captain. The average wage for a helicopter pilot in Canada is \$50,000 per year depending on location, responsibility and equipment.

Types of professional flight training programs

In Canada today, there are three main ways for pilots to obtain the minimum qualifications that Transport Canada requires to be eligible for employment (commercial licence). Each of these options also offers some or all advanced training opportunities such as multi-engine, float, instrument and instructor ratings.

1. You can train at a flight school or flying club, on a full-time or a part-time basis. Most schools will develop the training program around your schedule and availability.
2. You can train at a flight school or club that partners with a college or a university, so you can obtain college or university credits along with your professional pilot qualifications.
3. You can train at an accredited college or university offering an aviation diploma or degree program.

You can obtain your professional qualifications through any of these three routes. However you should also be aware that aviation employers are looking for more than just the minimum professional skills required for a commercial pilot licence.

The Human Resources Study of Commercial Pilots in Canada documents a number of the training programs employers want candidates to bring to the table along with their licences and ratings. These include technical aviation skills and non-technical skills.

You should note that many of the technical skills are for pilots intending to pursue airline and corporate charters careers. Your career choice may be different.

Technical Skills Training	Non-Technical Skills Training
Cockpit Management Systems	Crew Resource Management
Flight Management Systems	Pilot Decision Making
Terrain Collision Avoidance Systems	Interpersonal Skills
Ground Proximity Warning Systems	Team Member Skills
Glass Cockpit Familiarization	Organization Skills
Computerized Cockpit Familiarization	Customer Skills
	Problem-Solving Skills

Many ATAC member flight schools, college aviation programs and university aviation programs across Canada have worked hard in the past few years to build an enriched curriculum responding to employers' stated wishes.

Closing Remarks

The Air Transport Association of Canada has created this document to assist you in making informed decisions about pursuing a career as a professional pilot. Although this document may answer many of your questions, we encourage you to contact one of our member schools listed in the Career Catalogue. For additional information on pilot careers, visit www.atac.ca. Good luck in your career planning and we look forward to flying the friendly skies with you in the near future.

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