



Document Presented by the

Air Transport Association of Canada

to the

HOUSE OF COMMONS' STANDING COMMITTEE ON TRANSPORT,
INFRASTRUCTURE AND COMMUNITIES

ATAC Comments Motion M-177

“Instruction to the Standing Committee on Transport, Infrastructure and Communities
(Canadian flight training schools)”

December 4, 2018

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Overview

ATAC welcomes this opportunity to present recommendations to the House of Commons' Standing Committee on Transport, Infrastructure and Communities. The recommendations presented here fall into four broad categories:

- 1) Support student pilots
- 2) Support flight schools
- 3) Support research
- 4) Support outreach

This document also contains background information on topics such becoming a pilot, and the typical pilot career path.

About ATAC

Founded in 1934, the Air Transport Association of Canada (ATAC) serves as Canada's national trade association for commercial aviation and flight training industries, as well as aviation industry suppliers. Our membership is comprised of about 200 companies engaged in commercial aviation all across the country, including 50 flight training schools that together deliver approximately 80% of all commercial pilot licences issued in Canada.

Representing ATAC on flight training and labour market issues, including the current pilot shortage, is Darren Buss. Darren has an airline transport pilot licence and 13 years of experience as a professional pilot. He holds the title of Vice President at ATAC, and also sits on the board of directors at the Canadian Council for Aviation and Aerospace (CCAA). Since graduating from the Aviation and Flight Technology program at Seneca College in 2005 he has flown for air operators in Alberta, Manitoba, Saskatchewan, and Ontario, steadily gaining responsibilities as a pilot, training pilot, and manager. Darren holds a Bachelor of Science degree in Mathematical Science (specializing in Computer Science) from McMaster University, where he also studied Materials Engineering, and previously worked as a software developer.

Recommendations

1. Implement Government Backed Student Loans for Flight Training **[Support Students]**

Lack of financing is the most often cited reason why people discontinue flight training or choose not to pursue it at all. Making financing available would bring more people into aviation, and also give policymakers a tool to incentivize people into jobs where they are most needed, such as flight instruction and medevac. A similar incentive program already exists for medical personnel working in remote areas.

ATAC is consulting with commercial banks to create a student loan product for pilots. It is clear that banks are not willing to do this unless the loans are backed by government. Fortunately, a relatively small investment by government would result in a nationwide student loan program for pilots that could then be used to incentivize pilots into jobs where they are desperately needed. ATAC

estimates that less than \$5 million per year, over a 10-year program, would be sufficient to do this. This is based on an estimated participation of 600 pilots annually:

- 600 commercial pilots trained annually (domestic only)
- Worst case, all those pilots borrow the full cost of training (\$75,000)
- 600 pilots/year x \$75,000/pilot = \$45 million/year borrowed from bank
- Modelled loan default rate is 10%, therefore approximately \$4.5 million/year goes to default

2. Approve the Proposal to extend SWILP to Pilot Training [Support Students]

Student Work Integrated Learning (SWILP) is an excellent skill development program that has helped thousands of students acquire work-related skills. A proposal has been made to extend the applicability of this program to include pilots wishing to become flight instructors or floatplane pilots. This would increase the number of available flight instructors and therefore Canada's capacity to train more pilots. This proposal has received wide praise from both industry and government, but it has not yet been implemented.

3. Help Flight Schools Invest in New Technology and Infrastructure [Support Flight Schools]

The typical Canadian flight school operates aircraft that are older than the pilots who fly them. Newer aircraft are often quieter and more fuel-efficient than older aircraft. They are also more similar to the modern transport aircraft that student pilots will be expected to operate when they join the workforce, which makes them more effective trainers. Simulators¹ are another game-changing technology that is in short supply at most flight schools due to the fact their cost is similar to a new aircraft.

New single-engine training aircraft typically cost around \$400,000 USD. Multi-engine trainers typically start around \$700,000 USD. Certified flight training devices (FTDs), commonly called simulators, start at about \$300,000 USD for a single-engine aircraft and go up to several million for larger aircraft. Ideally, flight schools operate 7 single-engine aircraft for every multi-engine aircraft, and as many simulators as they can afford and have the space for. These are huge capital expenses for small businesses that operate on very tight margins.

A government program of matching spending on eligible purchases including aircraft, simulators, and facilities expansion (for simulators) would almost immediately increase capacity to train new pilots by enabling flight schools to make these critical investments. Giving preference to aircraft manufactured in Canada would also stimulate aerospace manufacturing in Canada. For example, the government program could offer \$1 for every \$1 spent by a flight school on aircraft and simulators built outside of Canada, and \$1.20 for every \$1 spent on products manufactured in Canada.

As a rule of thumb, every aircraft added to a flight school's fleet allows that school to train an additional 7 pilots per year.

¹ There are many kinds of devices used for flight training that simulate an aircraft and its environment with varying levels of complexity. These devices are categorized by Transport Canada according to their capability and each category has a name (ex. Flight Training Devices, Full Flight Simulators). For simplicity, this document will refer to all of these as "simulators".

4. Establish Approved Training Organizations (ATO) [Support Students & Flight Schools]

The Canadian Aviation Regulations (CARs) are the regulatory foundation for all aviation activities in Canada. They have remained largely unchanged since they were introduced in 1996. Since then, many things have changed, including advancements in simulator technology and a shift towards evidence and competency-based training techniques. The wording of the CARs, rooted in the thinking of the early 1990s, effectively prevents these advances from being used in ab-initio flight training only because they were not envisioned when the CARs were written. The CARAC process for changing the CARs is slow and difficult, but there is another way.

Approved Training Organizations (ATO) is a framework used in other jurisdictions around the world that allows flight schools to demonstrate compliance with the desired result of the regulations using a different means of achieving it. For example, if the regulations state that an applicant for a private pilot licence shall have completed a minimum of 45 hours of flight training, including a maximum of 5 hours in an approved simulator, an ATO might demonstrate that completing 20 of the 45 hours in an approved simulator produces pilots that are at least as competent. Using this approved syllabus, the ATO can conduct training that produces better pilots, less noise and less pollution, often at lower cost. ATO trained pilots must meet the same standards and pass the same assessments as their non-ATO counterparts. ATO may also open the door to using evidence and competency-based techniques in ab-initio training, which would further improve efficiency.

ATAC has been working with Transport Canada on an ATO framework for several years. Every year we hear that it is close to being ready. ATAC believes it would be in the best interest of the general public as well as pilots and the aviation industry for a carefully designed ATO framework to be approved as soon as possible.

5. Support Research Activities [Support Research]

Good data drives good decisions. Rigorous study of what prevents people, particularly those from underrepresented groups such as women and indigenous people, from choosing careers in aviation would be helpful in making decisions on the best way to allocate funding.

ATAC recommends that the government allocate resources, either internally or through an organization such as the Canadian Council for Aviation and Aerospace (CCAA), to complete such a study.

6. Support Outreach Activities [Support Outreach]

Any long-term solution to the current labour market shortage must include outreach to people not currently involved in the aviation industry. This includes youth, workers from other industries displaced by layoffs or wishing to change career, and people outside of Canada who may wish to immigrate.

ATAC recommends that the government make funding available to associations, such as ATAC, who are in a position to organize outreach events across Canada and internationally.

Aviation Labour Shortage

Canada faces a critical shortage of pilots and demand is expected to grow for the foreseeable future. Industry must increase annual domestic flight training output approximately 50% to meet the expected demand by 2025. Traditional recruiting methods are not sufficient; we must attract and retain a broader section of eligible workers. Only 7% of pilots are female. Fewer are aboriginal. Lack of access to financing for initial training costs is a major barrier for many.

Professional pilot training typically costs about \$75,000. Little or no financing (government or otherwise) is available to cover this cost. Access to financing would bring more people into aviation, and enable incentive programs for high-demand jobs.

Becoming a Pilot

One of several paths to becoming a professional aeroplane pilot in Canada is by enrolling in an integrated Commercial Pilot Licence – Aeroplane/Instrument Rating (CPL(A)/IR) integrated course at a Transport Canada certified flight school. These courses last between 9 and 36 months, with the typical duration being 18 months. They must include at least 400 hours of ground school instruction, and 190 hours of flight time, all of which must also meet a number of sub requirements. Students in an integrated program must successfully complete the knowledge requirements and pass flight tests for the Private Pilot Licence (PPL), Commercial Pilot Licence (CPL), multi-engine class rating, and the Group 1 Instrument Rating. Upon completion the student will be qualified to operate single pilot multi-engine aeroplanes in commercial air services, however, with no work experience job prospects are limited. The cost for this training varies, but \$75,000 is representative.

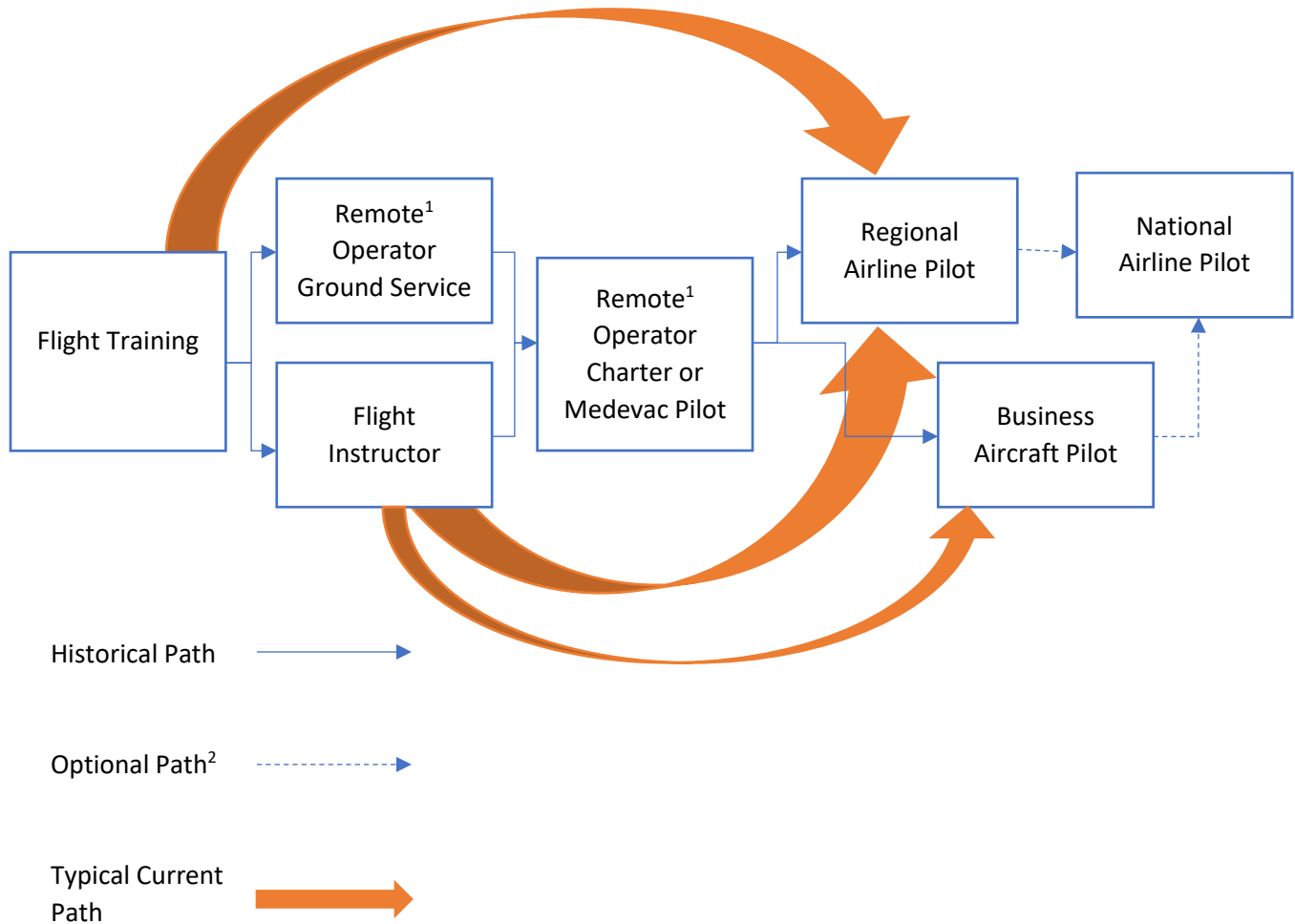
The most common way for new commercial pilots to gain experience is to become flight instructors. To become a flight instructor, the new commercial pilot must complete an additional 30 hours of flight time and 25 hours of ground instruction. This additional training typically costs about \$10,000.

The highest licence a pilot can obtain is the Airline Transport Pilot Licence (ATPL), which has historically been required to obtain employment at a regional or national airline. The requirements of the ATPL are typically met in the course of working as a pilot in the early part of one's career. These include passing two written exams, and completing 1500 hours of flight time. With an ATPL in hand, a pilot's career is limited only by his or her ability and aspirations.

The 'Typical' Pilot Career Path

New commercial airplane pilots today have three choices when it comes to getting their first job:

1. Become a flight instructor
2. Work for an air operator in a remote area. In the current labour market these operators are desperate for pilots, however, many have insurance or contractual requirements that prevent them from hiring pilots with less than a minimum number of hours (often 500 hours). Some remote operators may also require a float rating at a cost of about \$10,000.
3. Direct-entry first officer with a regional airline. Some regional airlines now have partnerships with select flight schools where a fixed number of the top graduating students are offered direct-entry flying positions with that airline. This is a recent change made necessary by the current labour shortage.



¹ “Remote” refers to remote communities.

² It must be acknowledged that all steps along this path are technically optional. Some people choose to become career flight instructors, or to spend their career in remote communities as a charter pilot. Other people start with the goal of becoming national airline pilots but choose to stay at a regional carrier for lifestyle or other reasons. This chart attempts to represent the most common, some would say stereotypical, choices

Speaking Notes

Good morning, and thank you for the opportunity to be here today to discuss the challenges faced by Canadian flight schools in meeting the needs of the Canadian aviation industry.

I’m here representing the Air Transport Association of Canada—ATAC for short. Since 1934, ATAC has been the national association for commercial aviation in Canada. We are the voice of almost 200

member companies engaged in all kinds of commercial aviation, all across Canada. That includes 50 flight training organizations who together deliver about 80% of all commercial pilot licences issued in Canada.

The recommendations I have fall into four broad categories:

- 1) Support student pilots as they achieve their goals
- 2) Support flight schools as they increase their capacity to train new pilots
- 3) Support research into attracting more people into aviation, especially underrepresented groups
- 4) Support outreach programs aimed at attracting more people into aviation

I invite you to browse the briefing notes I prepared for you. They contain important information that I won't be able to address in my allotted speaking time.

Ask any flight school today: "what's your biggest challenge?" and I bet they would say: "We need more flight instructors!" This would be a simple problem to solve if we could just manufacture more flight instructors, or buy them, or force people to become flight instructors; but of course, we can't. What we can do is entice more people to become flight instructors by making the profession more attractive, and by creating incentives for people to stay.

The good news is that I believe we can do all of those things, and go a long way towards solving the pilot shortage, and even reduce the noise and environmental footprint of flight training by doing the following:

First and foremost: Make student loans available for professional flight training. This would allow more people to become pilots, and more people to become flight instructors. ATAC is currently working with commercial lenders and government to create a national student loan program for pilots. With your support, we can have this program up and running in 2019.

Second: Use these student loans to create incentives for people to fill jobs that are currently understaffed, such as medevac pilots and flight instructors. For example, a portion of a loan could be forgiven if a pilot works for a set period of time in one of these jobs. A similar incentive program already exists for doctors and nurses working in remote communities.

Third: Approve an amendment to the existing Student Work Integrated Learning Program (known as SWILP) that's been proposed by ATAC and the Canadian Council for Aviation and Aerospace that would subsidize instructor ratings and float ratings with a conditional offer of employment. This proposal would increase the number of flight instructors available to train new pilots. In its draft form it has already received wide praise from both industry and government. It is simply waiting for government approval.

Fourth: Support flight schools making capital investments to modernize their fleets, buy new simulators, and build new classrooms. An excellent way to do this would be for government to match spending by flight schools on eligible capital expenses. Replacing the 1970s vintage aircraft operated by most flying schools with modern equipment would make the job of flight instructing more appealing, as well as reduce the noise and environmental footprint of flight training.

Fifth and finally: Support outreach activities by industry to encourage more people to become professional pilots, and especially professional flight instructors. Most people who get into aviation do so because they see the big airlines taking off and landing at their nearest major airport. There may be a large number of people out there who aren't interested in being an airline pilot, for lifestyle or other reasons, but might be interested in a career as a flight instructor. All they need is for someone to show them how it's done.

It's worth taking a moment here to discuss how one becomes a pilot. An integrated commercial pilot licence course usually takes around 18 months, and costs around \$75,000. Upon graduation, the successful student holds a commercial pilot licence, multi-engine class rating, and a group 1 instrument rating. They have about 200 hours of flight experience, which is not much. The most common way to build experience is to become a flight instructor, which requires another 1-2 months of training and an additional \$10,000. The next licence that the pilot will hold is the Airline Transport Pilot Licence (ATPL). This requires a minimum of 1500 hours of flight experience, which is typically obtained through the normal course of one's career, and normally takes 2-4 years.

As many of you already know, Canada earned its place as a leader in aviation training during World War II. Under the British Commonwealth Air Training Plan, Canada trained over 130,000 pilots and aircrew in just over 4 years, earning a reputation for excellence in the process. This remains a source of pride, as we still benefit from that legacy even today. While circumstances now are different, this is just one example of what we can do when we work together with a common purpose. Today we need to train between 7000 and 9000 pilots in 6 years. That is an achievable goal. I'm here today to offer my support, industry's support, and ATAC's support in achieving that goal. I'm asking all of you for your support as you consider the recommendations I've put before you. Together we can make Canadian aviation even better.

Thank you.

Question & Answer

Q: Tell us more about what's been done so far regarding the student pilot loans you mentioned.

A: ATAC has been working with both commercial lenders and representatives of the federal government to design a program that is acceptable to all sides and accomplishes the goal of producing more Canadian pilots. We are at the point where I believe that a deal in principle is within reach. With continued support from this committee and others in government, I believe we can have a student pilot loan program available soon. Neither industry nor government is in a position to do this alone in a timely manner; we must work in partnership.

Q: What can be done to entice more experienced pilots to become flight instructors after working in industry?

A: The biggest challenge in attracting experienced industry pilots into flight instructing jobs is the vast difference in pay and working conditions that flight instructors face compared to typical mid or late-career jobs. Right or wrong, flight instruction has been considered an entry-level job for a very long time. As such, pay is typically less than half what a mid-career pilot can make, and is based on flight hours (not salary), which can be unpredictable; instructors are expected to work any time of the day or

evening, any day of the week. Since flight schools don't usually have dedicated ground handlers, instructors also handle fuel and oil, de-icing, and physically move aircraft around the ramp; this must be done rain or shine, summer and winter. Obviously, this can be a disincentive for someone who has already "paid their dues" and worked hard for many years to reach an airline where much of the physical labour is done by others.

In a perfect world, flight instructors would be paid a respectable salary that reflects the experience they bring to the job, and flight schools would have sufficient resources so that instructors can focus on teaching. Financial assistance would be available to students so that flight schools could operate on a level playing field with other post-secondary education.

Simulators can help attract experienced industry pilots into flight instructing, at least part-time. Many operators forbid their pilots to fly an aircraft outside of their assigned duties at that company. This is mostly due to flight and duty time restrictions; however, these operators don't have the same prohibition on teaching in a simulator. Teaching in the simulator is also less physically demanding than teaching in an aircraft. Many airline pilots already make themselves available to teach ab-initio students in a simulator, but demand is limited due to regulations capping the number of simulator hours that can be counted towards licensing requirements, and by the relative lack of simulators at flight schools.

Increasing the use of simulators in ab-initio flight training by counting more simulator time towards licensing requirements, and by helping flight schools purchase them, is therefore one of the most effective ways of employing experienced pilots as ab-initio instructors.

Q: Why can't flight schools just pay their instructors more?

A: Aviation is a very expensive business, and flight schools operate on very thin margins. Any pay increase to the instructors would be passed on directly to the students—the same students who already have to pay around \$75,000 with little or no assistance. Increasing the price to students will result in fewer students, defeating our purpose. Making student pilot loans available will help to alleviate this.

Q: The travelling public already pays a lot for air travel. Where does all that money go?

A: Everything about flying is expensive, from fuel to insurance, maintenance, regulatory compliance, taxes and tariffs — the money paid by consumers is spread far and wide.

It's also important to make the distinction between the major air carriers and flight training schools. Major air carriers make billions each year in revenue; flight schools don't receive any of that money.

Q: Could industry assign active airline pilots to become part-time flight instructors?

A: Ab-initio flight instructors need to have a valid flight instructor rating issued by Transport Canada. Simply being an experienced pilot, even a training pilot with an airline, wouldn't qualify someone to teach ab-initio students. Even if the pilot used to be a flight instructor, that rating would likely have to be renewed with Transport Canada before that person could legally instruct a new student. There's also the issue that flight and duty time regulations dictate the hours a pilot spends instructing count against the hours that pilot can fly for the airline; therefore, the airline would have the cost of a full-time employee without getting the full value of that employee. It seems unlikely an airline would agree to this.

Again, it's important to make the distinction between flight training schools and the rest of the aviation industry. Flight training takes place at all levels of the industry, but only flight training schools carry out *ab-initio* flight training (i.e. training people who've never flown an airplane, and helping them get a pilot licence). The training that takes place during subsequent stages of a pilot's career is usually type-specific training (i.e. a pilot who already has a licence is trained by the employer to fly the specific aircraft operated by that company). Whereas *ab-initio* flight training must be carried out by a flight instructor designated by Transport Canada, type training can be given by a company-designated training pilot.

Q: Who pays for flight training right now?

A: Since there is currently little or no financial assistance available to student pilots, these pilots must work multiple jobs, borrow from family, or get co-signed loans. Significant numbers of people who might want to become pilots simply don't have those options available.

Q: How are other countries addressing their pilot shortage?

A: Europe and Asia have had airline cadet programs for years. Airline cadet programs are run by individual airlines and typically select students from high school on a competitive basis. These students are put through a rigorous training program paid for entirely by the airline. Successful graduates are then given a job as a first officer at that airline or one of its subsidiaries. Some of these programs expect their cadets to repay the cost of their training gradually through payroll deductions over a number of years.

In reaction to the recent pilot shortage, airlines in the United States are implementing similar programs. American Airlines, Delta, and United Airlines all have cadet programs with varying degrees of funding, but all offer a defined path to an airline with financial assistance available.

Q: Why do trained pilots leave aviation?

A: Individual reasons vary greatly, but for the sake of discussion let's generalize by categorizing people who leave aviation into voluntary and involuntary groups.

In my experience, people who voluntarily leave aviation tend to do so early in their career, and the most often cited reason is that the career is simply untenable due to financial or personal reasons. A pilot's early career is often difficult, with low pay, unpredictable schedules, and the necessity of moving away from one's home and family to find work. These challenges can be present even into mid-career jobs, leaving all but the most passionate about aviation to consider opportunities in other fields. Others never intended to spend their career flying, and may have simply learned to fly as a pathway to a related field such as air traffic control or aeronautical engineering. Still others leave Canada to pursue more lucrative or adventurous jobs in other countries.

While some pilots must involuntarily hang up their wings due to medical reasons, the bulk of involuntary departures are due to retirement (in the sense that everyone must stop working at some point). The international regulatory environment puts restrictions on pilots once they turn 60, and retirement is effectively mandatory by age 65. There is currently a large cohort of pilots reaching that age. In the Labour Market Information Report released in March 2018, the Canadian Council for Aviation and Aerospace (CCAA) indicated that 72% of hiring in air transportation jobs will be due to replacement demand.