



Aviation is exciting and vital to our nation's future. The COPA For Kids Aviation Program is a - **free of charge** - aviation program that puts COPA member pilots together one-on-one with young people between 8 and 17 years of age to show them what aviation is all about and to give them an experience of being in the cockpit of an aircraft



Photo: Jeff Page

in flight. The participants will experience an enjoyable flight that will give them new perspectives on the world and life in general.

Participation in the COPA For Kids Aviation Program will help young people understand that a pilot is simply an ordinary individual with special skills developed through training and practice. The participants will learn the technology and science of flight and be shown the advantages of the hard work required to achieve a pilot's license. Being in the cockpit of a working aircraft in flight will help to de-mystify the art and science of aviation. Many people remember this experience for the rest of their lives. This demonstration flight is completely free.

AVIATORS ARE NOT BORN, THEY ARE INSPIRED BY OTHER AVIATORS



**Mission:
To Advance, Promote, and Preserve the Canadian Freedom to Fly**

The Canadian Owners and Pilots Association was founded in 1952 to speak as the unified voice for general aviation in Canada. Since then, COPA has grown to meet the ever-changing needs of the Canadian aviation community. The COPA Flight Safety Foundation, founded in 1973 to promote flight safety in the field of general aviation, collects tax-deductible donations from across the country to sponsor safety-related initiatives.

Due to the wide variety of challenges and obstacles faced by the general aviation community, COPA created a fund to solicit contributions which are used to fund legal actions at all levels and projects of national importance vital to the future of general aviation. To date, the COPA Freedom to Fly Fund has provided more than \$1.3 million to secure general aviation's future in Canada.

COPA is also active at the grassroots level, with over 200 regional and local chapters which constitute the COPA Flights. The first flight was formed in Guelph in 1964 and today the program boasts flights in every province and two territories. The COPA Flights are an essential component to the success of the COPA for Kids program which introduces over 3,000 Canadian children to general aviation each year and is a vital component of our collective outreach and promotion within the broader community

Today we are proud to represent close to 16,000 members in every province and territory who recognize the need for strong, effective representation. COPA's heritage is an important part of our identity as a community and the same vision that led to our organizations founding in 1952 guides us to this day, as we continue to advance, promote, and preserve the Canadian freedom to fly.



www.copanational.org
 @copanational

Canadian Owners and Pilots Association
 75 Albert Street, Suite 903
 Ottawa, ON, K1P 5E7
 Tel.: 613-236-4901
 Fax: 613-236-8646



IGNITING DREAMS OF FLIGHT



Photo: Jeff Page





Photo: Nikki Tsimiklis

What do I have to do to fly?

If you are age 8 through 17, you and your parents or guardian should read through this brochure and complete the waiver and registration forms before your flight. Once the form is ready, take it to your COPA For Kids pilot who will prepare you for your demonstration flight. You can ask your pilot as many questions as you like. In doing so, you'll learn more about aircraft and the principles of flight. That's all there is to it. It's really that simple!

Do I need to prepare for the flight?

You don't have to do anything but it would help to read "What are the different parts of an aircraft" on the back. Take a few minutes to find out what makes an aircraft fly and what the different parts of an aircraft do. This will help you to understand the things your pilot will talk about during your flight.

Who are the pilots?

The pilots who are participating in the COPA For Kids Aviation Program are members of COPA who are volunteering their time and aircraft to make your flight possible. (See paragraph about COPA on the next page). Each COPA For Kids pilot is licensed by Transport Canada and all the aircraft utilized are registered by Transport Canada.

Is flying safe?

Millions of people fly safely in aircraft every day. However, an airport is not a playground. Listen and follow instructions given by your pilot and follow these simple rules when you are around an aircraft:

- Stay away from moving aircraft and especially the propellers.
- Listen carefully for instructions on entering and exiting the aircraft.
- Do not touch any part of an aircraft inside or outside, without the pilot's permission.
- Stay with your pilot or ground crew at all times.
- Obey the safety instructions given to you in the aircraft by the pilot.

Participants will experience:

A chance to examine a working aircraft close up on the ground (static display).

A short ground school session conducted by a pilot who will explain what the various parts of an aircraft are, what they do and will answer questions about aviation and flying.

A walk around, preferably conducted on a static display aircraft, to show them how pilots prepare for each flight and to brief them on the safety aspects of their flight.

A flight in the front seat (if possible) of an aircraft where they will be able to observe all the facets of flight from start-up to take-off to cruising to landing and shut-down. The flying should be conducted one-on-one unless the parent or guardian wishes to accompany the young person and the pilot has room and carrying capacity in his aircraft.

Aviation Program Duration:

Ground School: about 20 minutes.

Flight: between 20 and 45 minutes depending on the number of young people to fly, the weather and age of the participant.

Total experience: 1 ½ to 2 ½ hours, including ground time, registration, and wait time for aircraft and pilots.



Online Ground school Your First Step to the Left Seat



Hangaaar
Online Ground School for Private in Canada
Take Your Ground School Anywhere!
<https://hangaaar.com>

COPA is pleased to collaborate with Hangaaar, a Canadian provider of online groundschool programs. Transport Canada requires that every person applying for a Private Pilot License complete a minimum of 40 hours of ground instruction in areas such as Air Regulations, Theory of Flight, Weather, Aircraft systems, navigation, and other areas. Following the groundschool, candidates are required to write a written exam and obtain a minimum of 60% in each area.

Hangaaar's online course meets all of the required criteria set out by Transport Canada and, upon successful completion (including the provided practice exams), will enable students to get the recommendation letter needed to write the Transport Canada exam.

Students can log in anytime, and from anywhere to complete the course modules – offering flexibility to work around busy schedules and other commitments. Your access to the Hangaaar program is provided free for one year from the date of first registration.

Neil Armstrong Scholarship

The Neil Armstrong Scholarship Fund promotes Canadian pilot development by providing annual scholarships to student pilots in both ab-initio and advanced flight training programs.

Created to honour one of Canada's foremost aviators, the scholarship has helped many Canadian pilots get their start.

The main award is the "ab-initio" award which contributes \$10,000 toward eligible costs of obtaining a Private Pilot License. A second award, of \$5,000, is available for "advanced flight training" and can be put toward eligible training costs for higher licenses or ratings.

To apply, applicants must be Canadian citizens between the ages of 15-21.



Neil Armstrong was one of Canada's foremost flying instructors

For more information, including how to apply, visit our website:
copanational.org/scholarship
Application deadline is March 1st of each year.

"I received that scholarship in my final year of High School; and it was that support from COPA that kick-started my career in aviation. It's been a long road, from training on a Cessna 152 with the Neil Armstrong Scholarship, to flying a CF-18 with the RCAF. Nonetheless, it would be fair to say that journey started with support from COPA."

Matthew Kutryk



Heath Moffatt



The pilot's office... the aircraft cockpit

The **cockpit** instruments tell the pilot where he/she is, how high the aircraft is and how fast it is going. Switches inside the cockpit operate things like radios and lights, **landing gear**, flaps and **deicing heaters**.

The **aircraft ailerons** and **elevators** are controlled by the pilot using a control wheel or a control stick. These controls let the pilot point the aircraft where it is needed to go.

The **elevators** are moved by pulling back and pushing forward on the controls. When the pilot moves the controls to the right or to the left, the **ailerons** on the wings move up or down.

On the floor of the **cockpit** are pedals. These pedals are not to accelerate or brake, instead they are used to operate the **rudder**. When the pilot pushes the right pedal, the **rudder** moves to the right. It will move left when the left pedal is

Flight depends on four basic forces: Lift, Gravity, Thrust and Drag.



How Aircraft Fly

Aircraft have a main body (fuselage), and wings and a tail (empennage) plus an engine.

The **fuselage** includes the cockpit, where the pilot sits during the flight. The **fuselage** in small aircraft usually has the **engine** and **propeller** attached in front of it.

Aircraft have **wings** to lift them up into the sky. On the rear side of each wing is a part that moves up and down called an **aileron**. Ailerons help the aircraft turn right or left. Other parts of the wings include the **flaps** which help the aircraft to land. The tail part that sticks up straight is called the **vertical stabilizer**. The moving part of the vertical stabilizer is called the **rudder**. The rudder is used to turn the nose of the aircraft right or left. The tail part which is flat is called the **horizontal stabilizer**, which has a moving part called the **elevator**. The elevator makes the aircraft move up or down.

The engine makes the aircraft go forward. The engine turns the propeller and the propeller pulls the aircraft through the sky.



pushed. On some aircraft the brakes (which are used only on the ground), are located on the top of the floor pedals.

Lift is a force that an aircraft must create to go up and stay up against gravity. The aircraft wing makes lift as the aircraft moves forward.

Gravity is the force that holds us on the ground. When we hold something up and then let it go, it drops because of gravity.

Thrust is created by the engine and the rotating propeller, and pulls the aircraft forward so the wings create lift. Just as lift overcomes the force of gravity during flight, thrust must overcome the force known as

Drag, which comes from resistance with the air – in this case, produced by moving our aircraft forward through the air!