



# **COPA** **FOR KIDS** **AVIATION PROGRAM**

SPONSORED BY:



**IRONSHORE®**



CANADIAN OWNERS AND PILOTS ASSOCIATION

# introduction

**A**viation 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 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.

## 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.

## 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.



## WHAT WILL MY FLIGHT BE LIKE?

First of all, your pilot will explain what you will do and see. This may include:

- Telling you about the aircraft.
- Reviewing an aeronautical chart and identifying reference points you will look for during the flight.
- Completing a careful “walk around” preflight inspection of the aircraft and identifying the parts that control the aircraft.
- Helping you buckle your seat belt and describing the interior of the aircraft, including the instrument panel.

The flight will be conducted according to Canadian Aviation Regulations. In addition, no aerobatic maneuvers will be performed.

## WHAT HAPPENS AFTER THE FLIGHT?

Your pilot will retain a record of the flight and will register the flight in the COPA Junior Aviator Logbook.

You can check the COPA for Kids web site Junior Aviator Logbook to find your name: <http://www.copaforkids.org>.

## WHAT IS COPA?

COPA is the Canadian Owners and Pilots Association, a Canadian non-profit Association representing some 18,000 pilots, aircraft owners and aviation enthusiasts across all the provinces and territories of Canada. Members are of every age group, including many airline and commercial pilots, engineers and business people. They fly all types of aircraft, including “amateur-built” (a category of aircraft designated by Transport Canada, built by individual

craftsmen instead of on a factory assembly line). The 16,000 aircraft belonging to COPA members represent more than half of all the 31,000 aircraft in Canada and can be seen on every airport in Canada.



COPA “Flights” are groups of COPA members from a particular town, city or area, organized into a named Flight which is democratically elected and which follows the rules, principles and objectives of the national COPA organization. Each COPA Flight is provided insurance coverage so that they may carry on a variety of aviation events on a regular basis, including COPA For Kids introductory flights. There are approximately 150 Flights located across Canada.

[www.copanational.org](http://www.copanational.org) | [www.copaforkids.org](http://www.copaforkids.org)

## COPA SCHOLARSHIPS

COPA has a scholarship program to recognize excellence among students who are learning the skills needed in the field of aviation. Through these scholarships, individuals who have a financial need are able to accomplish their goals. For more information, visit

<http://www.copanational.org/>

## COPA FOR KIDS AVIATION PROGRAM SPONSOR - IRONSHORE [www.ironshore.com](http://www.ironshore.com)

The COPA For Kids Program is sponsored by Ironshore. Ironshore provides specialty insurance coverages for risks located throughout the world, operating in Bermuda, USA, Europe, UK, Canada and Australia. Select specialty coverages are underwritten at Lloyd’s through Ironshore’s Pembroke Syndicate 4000.

Ironshore is one of the fastest growing companies in the industry, and in 2010 was named #2 Top New Product Pacesetter by Advisen, affirming Ironshore’s innovation in the marketplace.

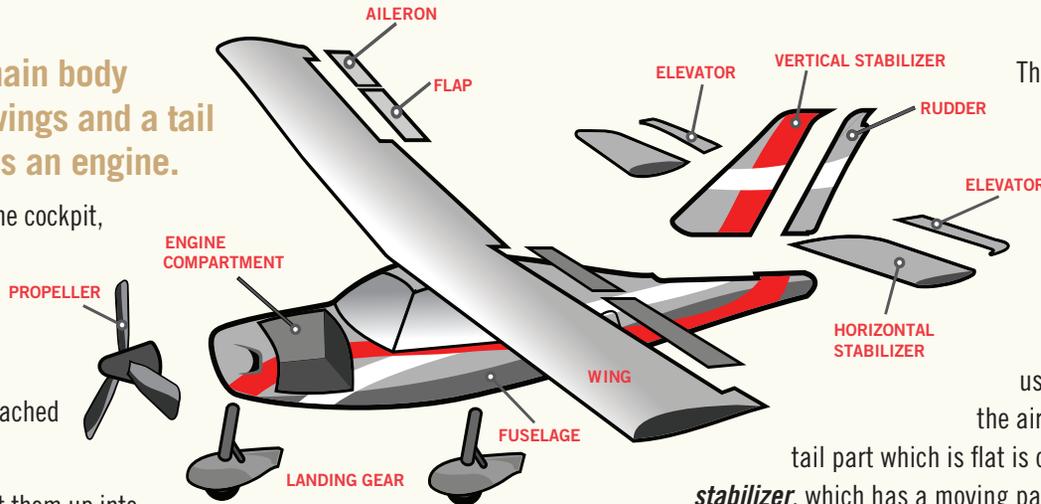


# how aircraft fly

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.

## 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 **aileron**s on the wings move up or down.

On the floor of the **cockpit** are pedals. These pedals are not to accelerate



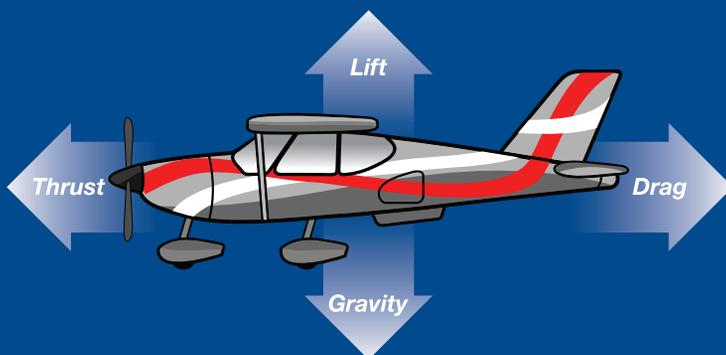
Example of an older cockpit instrument panel



Example of a modern cockpit instrument panel

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

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



**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!

# registration form



**IMPORTANT NOTE:** To COPA Flight organizers, return both sides of this form to: COPA For Kids, 71 Bank St. 7th Floor, Ottawa, ON K1P 5N2

**Participant:** Please complete the upper portion of this form and give it to your volunteer pilot.

**Parent or guardian:** Please read and sign the agreement form (immediately preceding this page), before the flight.

**Pilot:** Please complete your portion of the registration form and ensure that the agreement is signed by the parent or guardian before the flight.

## PLEASE PRINT

### PARTICIPANT REGISTRATION

LAST NAME OF PARTICIPANT \_\_\_\_\_ FIRST NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ PROVINCE \_\_\_\_\_ POSTAL CODE \_\_\_\_\_

AGE \_\_\_\_\_ PARTICIPATED BEFORE? \_\_\_\_\_ TELEPHONE \_\_\_\_\_

E-MAIL ADDRESS \_\_\_\_\_

### How I found out about the COPA For Kids Aviation Program:

Community Paper     COPA Flight Advertising     I heard from a friend     School     Internet

### PILOT REGISTRATION

COPA MEMBER NUMBER \_\_\_\_\_

LAST NAME OF PILOT \_\_\_\_\_ FIRST NAME \_\_\_\_\_ MIDDLE INITIAL \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ PROVINCE \_\_\_\_\_ POSTAL CODE \_\_\_\_\_

E-MAIL ADDRESS \_\_\_\_\_ TELEPHONE \_\_\_\_\_

AIRCRAFT TYPE \_\_\_\_\_ A/C IDENT \_\_\_\_\_ COPA FLIGHT # \_\_\_\_\_ DATE OF FLIGHT (M/D/Y) \_\_\_\_\_

**I certify that I meet the guidelines for participation in the COPA For Kids Aviation Program; I am a current COPA member, I hold a pilot permit or licence and a valid medical certificate. I am current in the aircraft I will fly and am recent according to the Transport Canada (TC) definition of Recency . I also have passenger liability insurance specified by TC and COPA and the aircraft I will fly is in airworthy condition.**

\_\_\_\_\_  
Pilot Signature

\_\_\_\_\_  
Date

## AGREEMENT TO WAIVE LIABILITY, COVENANT NOT TO SUE, ASSUME RISK AND INDEMNITY

The young person listed below (“Young Person”) wants to take part in the Canadian Owners and Pilots Association (“COPA”), COPA for Kids Aviation Program, including riding in an aircraft. The COPA for Kids Aviation Program is conducted by volunteer COPA member pilots who are licensed by the Department of Transport, Transport Canada (“TC”). These volunteer pilots fly a wide variety of aircraft that are also licensed by TC. I am the Young Person’s parent or legal guardian and I represent and warrant that I have the authority to enter into this agreement. In exchange for being allowed to take part in the COPA for Kids Aviation Program, the Young Person and I agree as follows:

**AGREEMENT TO WAIVE LIABILITY** | The Young Person and I, in my own right and as parent or guardian (for ourselves, our heirs, family members, personal representatives and assigns), release and forever discharge COPA, Ironshore Canada Ltd. (“Ironshore”) and their respective officers, directors, members, chapters, employees, agents, divisions, subsidiaries, affiliates (including any Lloyd’s Syndicates which Ironshore manages), volunteers, sponsors, insurance brokers and insurers (including pilots, owners and operators of aircraft used in the COPA for Kids Aviation Program) (“Representatives” and individually a “Representative”), jointly and severally, from any and all actions, causes of action, suits, liabilities, demands and claims against COPA and/or Ironshore and/or Representatives (including, but not limited to, claims for any injury or death) in any way arising from the Young Person’s and/or my participation in the COPA for Kids Aviation Program. It is hereby agreed and understood that Ironshore is a financial sponsor only of The COPA for Kids Aviation Program. Ironshore Canada Ltd. does not have any input or control over the operation or conduct of COPA and/or the COPA for Kids Aviation Program. This waiver, release, and discharge applies to all legal rights, including those resulting from any negligence of COPA and/or Ironshore, and/or their Representatives, unless such rights result from the gross negligence or willful misconduct of COPA in which case the waiver, release and discharge will not apply to COPA.

**COVENANT NOT TO SUE** | The Young Person and I, in my own right and as parent or guardian (for ourselves, our heirs, family members, personal representatives and assigns), hereby covenant and agree not to sue or take any proceedings against COPA, Ironshore, and the Representatives, jointly and severally, for any claims (including, but not limited to, claims for injury or death) arising from the Young Person’s and/or my participation in the COPA for Kids Aviation Program. This covenant not to sue applies to all legal rights, including those resulting from any negligence of COPA and/or Ironshore and/or their Representatives, unless such rights result from the gross negligence or willful misconduct of COPA in which case the covenant not to sue or take any proceedings will not apply to COPA.

**ASSUMPTION OF RISK** | We understand and confirm that flying in aircraft and being around aircraft involves risks. Serious injury or death can result from many causes, including aircraft crashes, falls, pilot error, ground crew error, engine or mechanical failure, negligent maintenance, defects in runways, interference by birds and other objects, weather conditions, contaminated fuel, or hard or forced landings. Injuries could be minor such as bruises, scratches and sprains, major such as eye injuries, broken bones and concussions, or catastrophic such as paralysis, severe burns or death. If the Young Person is old enough to understand these risks, I have explained them to him or her. **The Young Person and I, in my own right and as parent or guardian (for ourselves, our heirs, family members, personal representatives and assigns), assume all risks and full responsibility for any injury or death arising from taking part in the COPA for Kids Aviation Program.**

**INDEMNIFICATION** | **The Young Person and I, in my own right and as parent or guardian (for ourselves, our heirs, family members, personal representatives and assigns) agree to indemnify and hold COPA, Ironshore, and the Representatives, jointly and severally, harmless from any and all actions, judgments, claims, costs, damages, and liabilities, including, but not limited to, lawyer’s fees and disbursements, arising from the Young Person’s and/or my participation in the COPA for Kids Aviation Program. This duty to indemnify and hold COPA and Ironshore and their Representatives harmless applies even if COPA or Ironshore or any Representative is negligent; however, this duty to indemnify and hold harmless shall not apply in relation to COPA if and to the extent that such claims, costs, damages or liabilities result from the gross negligence or willful misconduct of COPA.**

**LEGAL ADVICE** | I know that I can talk to my legal advisor about this Agreement to Waive Liability, Covenant Not to Sue, Assume Risk and Indemnity (the “Agreement”) and I have either done so or chosen not to. I understand that I have the right and have been given the opportunity to object to and bargain about the provisions of this Agreement. I am freely and voluntarily signing this Agreement and intend it to be the unconditional release of all liability to the greatest extent allowed by law.

**BINDING EFFECT** | This Agreement shall inure to the benefit of the respective heirs, executors, legal personal representatives, administrators, successors and assigns of each of COPA, Ironshore and the Representatives and shall be binding on the undersigned and their heirs, executors, legal representatives, administrators, successors and assigns.

### Before Signing, Carefully Read This Entire Agreement

**You and the Young Person (by signing this Agreement) are giving up legal rights and incurring legal liabilities.** If any part of this Agreement is held invalid, the rest of the provisions shall remain in effect. **If you do not understand anything in this Agreement, you should not sign it and you should talk to your legal advisor.**

\_\_\_\_\_  
Parent or Guardian's Signature

\_\_\_\_\_  
Please Print Young Person's Name

\_\_\_\_\_  
Please Print Parent or Guardian's Name

\_\_\_\_\_  
Date