

CZYZ Pilot Tutorial Series

VFR Flying in CZYZ Airspace

The purpose of this tutorial is to assist pilots in flying successfully within the CZYZ Airspace. The airspace is huge, covering an area equal to the size of California and Texas *combined* !

The primary focus of this tutorial will be on Toronto's Pearson International Airport (CYYZ), Canada's largest airport, however, we will briefly touch on the other airports in the region. This tutorial is not designed to teach you how to fly on the Vatsim network, please consult the Pilot Resource Center (PRC) on the main Vatsim website (<http://www.vatsim.net/prc/>) as there is a wealth of information there to assist you.

OK, lets get started.

General Tips for flying in CZYZ

- Always contact the active controller online regardless of the type of flying you will be doing (IFR or VFR). If you are outside of the controller's airspace or flying in uncontrolled airspace the controller will advise. This is particularly important for VFR aircraft flying in the Class C airspace around Toronto (within 26 miles of CYYZ) as this is highly congested airspace where all aircraft are controlled regardless if they are IFR or VFR. More explanation on this later in this document.
- Do NOT accept any controller request that you do not understand. If you need clarification please ask for it and our staff of friendly controllers will be more than happy to assist you.
- Please minimize communication to controllers in Private Messages as controllers prefer to control over the main frequency as this reduces controller workload.
- If you receive a message saying "*please contact me*", all it means is that you are in or about to enter a controllers airspace and they are contacting you to control your aircraft. **It does not mean that you have done anything wrong!**
- Pilots are encouraged to operate in at least Voice Receive mode. This will save the controllers a significant amount of work and make communication easier. It is understood that this is not always possible, however, it is highly recommended.
- And finally, please be patient. There are times when a controller may be covering multiple positions and handling a very high workload. Your request will be handled according to priority.

DID YOU KNOW?

ALL OF THE REQUIRED CHARTS ARE AVAILABLE ON OUR WEBSITE AT WWW.CZYZ.CA

VFR Flying within CZZYZ Airspace

VFR flying within CZZYZ Airspace is a great way to see the amazing scenery that Ontario has to offer. Whether it is the cities of the Golden Horseshoe around lake Ontario or the endless lakes in “cottage country” there is lots to offer the virtual pilot.

For a current list of Ontario sceneries for FS2004 and FSX please visit our website at www.czyz.ca

Let's start off this tutorial by asking a question:

When should the pilot contact air traffic control ?

The answer is relatively simple. It depends where you are and where you are going. If you are at a tower controlled airport and a controller is online covering that airport then you should contact the controller. Remember that the Departure, Arrival and Center controllers will act as tower when no tower is online. If you are not at a tower controlled airport then monitor Unicom and begin your flight.

How do I know if the airport I am at has a control tower ?

You need to look at the chart of the airport located in the charts section at czyz.ca

The following chart for CYKZ (Buttonville) shows that it has a tower.

CANADA AIR PILOT

Effective 0901Z 20 NOVEMBER 2008 to 0901Z 15 JANUARY 2009

AERODROME CHART TORONTO/BUTTONVILLE MUNI TORONTO ON

☉ ATIS 127.1	☉ GND 121.8	☉ TWR 124.8 119.9 O/T TFC 124.8 (MF 5 NM)				DEP TORONTO TML 133.4 363.8		
DECLARED DISTANCES		03	21	15	33			
TORA	2693	2693	3902	3902				
TODA	2793	2793	4102	4102				
ASDA	2693	2693	3902	3902				
LDA	2693	2693	3902	3902				

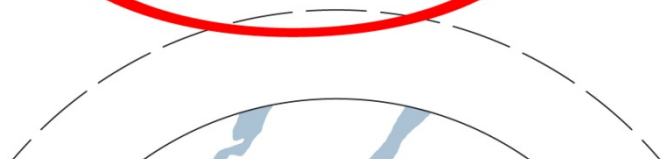
The following chart for Peterborough CYPQ Show that it does not have a control tower and the pilot is expected to monitor Unicom (122.80 on Vatsim)

CANADA AIR PILOT

Effective 0901Z 20 NOVEMBER 2008 to 0901Z 15 JANUARY 2009

NDB RWY 09 (GNSS) PETERBOROUGH PETERBOROUGH ON

Legacy AWOS 126.925	AP TORONTO CENTRE 134.5	☉ UNICOM 123.0 (ATF 5 NM) O/T TFC 123.0	DEP TORONTO CENTRE 134.25	ELEV 628 TDZE 09 625
Verify runway unobstructed when A/G advisory not available.				CYPQ



VFR Flying in the Toronto Class C Airspace

When flying VFR, when should you contact the controller?

If you are familiar with the various types of airspace (Class C, Class E, etc.) and have access to the proper charts, you can fly as you would in the real world, and contact the IFR controller as per real world procedures.

If, however, you are new to Vatsim or unfamiliar with the above, it is best to contact the appropriate IFR controller and advise your intentions. The controller will provide control services based on the flight you have planned. As an example, if you are planning circuits at CNC3 below the class C airspace the controller will advise you to fly on your own. If you plan a sightseeing trip from Buttonville to the Island Airport within the Class C then the controller will assign you a squawk code and request that you stay on frequency.

When flying within the Class C Airspace surrounding Toronto (25 miles from YYZ VOR) you will be required to do the following:

- 1) Be in contact with a controller at all times.
- 2) Have your transponder on and squawking a unique SSR code. (assigned by ATC)
- 3) Adhere to the Class C altitude restrictions
- 4) Adhere to the Class C airspace restrictions

The chart on the next page shows the where VFR aircraft may fly in the Class C airspace (a larger version is available for download in the charts section of the website).

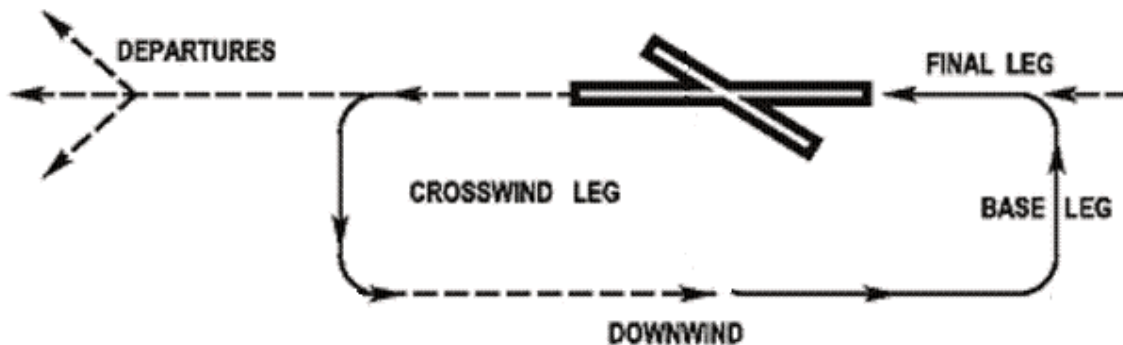
Circuits, Touch and Go's, Low and Over's and the Option

At any of the tower controlled airports you may fly any of the standard circuit options. Please keep in mind the following information:

Circuit Height

The circuit height is 1000ft above the Airport Elevation. As an example, at London (CYXU), the aerodrome elevation is 912 ASL and therefore the circuit altitude is 1,912 ASL. When rounded to the nearest hundred feet the circuit altitude becomes 1,900 ASL. Circuit altitudes for aerodromes are found in the Canadian Flight Supplement (CFS) in the procedure section (PRO) for each airport. When flying on Vatsim this simple calculation above will suffice.

Circuit Direction



In Canada the standard circuit direction is Left Hand, however, certain airports use the Right Hand pattern due to runway configuration, obstacles, or noise abatements that make the left hand circuit impractical.

Touch and Go- A touch and go is the most common operation requested and consists of the aircraft touching down on the runway, then accelerating and taking off without ever coming to a complete stop.

Stop and Go- The aircraft will land, and come to a complete stop on the runway before starting its next takeoff. The amount of time that an aircraft stops on the runway is not fixed.

Low Approach- A low approach is also referred to as a 'low and over' or 'low approach and overshoot'. A low approach consists of the aircraft approaching the runway but never touching it. The altitude at which the aircraft flies over the runway may vary. A low approach is often performed by a pilot to practice a go-around or to inspect the runway.

Full Stop- Upon landing the aircraft exits the runway via the first possible taxiway (unless the controller authorizes exiting onto a different runway or a backtrack). Pilot's should not turn around on the runway to go back to a taxiway they have just passed; you should always continue on to the next taxiway ahead.

Option- 'the option' is an operation requested by a pilot, (typically a flight instructor) for training purposes. When cleared for 'the option', the pilot is authorized to perform any of the above four operations. 'The option' is beneficial for pilot training as the instructor does not have to state to ATC which operation they will be doing with advance notice. This helps keep the student pilot on their toes.

VFR Weather

The VFR pilot flies their aircraft primarily by looking outside of the cockpit and not relying on their instruments to navigate. Because of this, the pilot is to **always maintain visual contact with the ground and never enter cloud.**

Ceiling

1000 feet above the ground. The pilot must also remain at least 500 feet below cloud. To do this, it is necessary that the 'ceiling' or base of clouds be at least 1500 feet above ground (AGL). In a METAR weather sequence, the lowest cloud layer described as either Overcast (OVC) or Broken (BKN) is defined as the 'ceiling'.

Visibility

The minimum visibility required for VFR flight is 3 SM (statute miles). 3 miles visibility is barely enough to enable aircraft to see, and maneuver around each other if required. Although VFR flight is not recommended during marginal visibility (MVFR), 3 miles is the legal minimum.

VFR cruise altitudes

To reduce the chance of mid-air collisions VFR aircraft cruise at altitudes which depend on their flight track. The first, or lowest VFR cruise altitude is flown once an aircraft is at least 3,000 AGL. VFR cruise altitudes are separated by 500 feet which is the minimum that Towers use to separate aircraft vertically.

Eastbound: tracks from 000 to 179 inclusive odd altitudes + 500 feet
Westbound: tracks from 180 to 359 inclusive even altitudes + 500 feet

At London the airport elevation is 912 ASL, therefore the first VFR cruise altitude is required above 3,912 ASL. This means that VFR flights may cruise at 2500, 3000, 3500, 4000 or any altitude they choose regardless of direction of flight. The first required VFR cruise altitudes around London are:

Westbound: 4500, 6500, 8500, etc Eastbound: 5500, 7500, 9500, etc

Because the first mandatory westbound cruise altitude is 4,500 pilots conducting flights of short duration often fly at lower altitude such as 2,500 3,000 or 3,500.

We hope this brief introduction to VFR flight will help you fly successfully within the CZZZ airspace.

Remember that not everything and all scenarios could be covered in this tutorial. If you have questions, please ask the controller on duty. The controllers at CZZZ are highly trained, some are real world controllers, and are always willing to help pilots make their flying experience within the airspace enjoyable and educational.

On behalf of the staff and controllers at CZZZ, we hope you have enjoyed this tutorial, we look forward to seeing you flying in our airspace and please remember that we are available to answer and questions you may have.

Blue Skies!

