Proposal Document

NAV CANADA wishes to inform customers in the Toronto area that the Company is conducting an Aeronautical Study to assess the airspace structure and services within the Windsor-Toronto-Montreal (WTM) airspace corridor to ensure they meet customer requirements.

Proposals have been developed for several airspace changes. Your input is important to NAV CANADA and we welcome any issues, concerns and suggestions you may have on the proposals presented below.

Control Zone Changes

Buttonville (CYKZ)

Proposals
Enlarge the zone approximately 2.5 nm south. Will reach just past Lawrence Ave. to the south and run east past Victoria Park. The zone will touch the YZD (Downsview) and new, expanded YTZ (City Centre) control zones (see map below).

Raise control zone height to 2,500’ ASL.

Rationale
Expand the zone to enhance situational awareness in the current Class E airspace with a heavy concentration of VFR aircraft. The intent is to provide control service to VFR aircraft between Toronto/Buttonville and Toronto/City Centre airports; many follow the Don Valley Parkway.

Raise the height to allow the tower to assign 2,500’ ASL to aircraft. This provides the controller with more options to manage traffic and reduce the workload related to passing traffic information (VFR aircraft separated vertically by 500’ are not required to be passed as traffic).

Toronto City Centre (CYTZ)

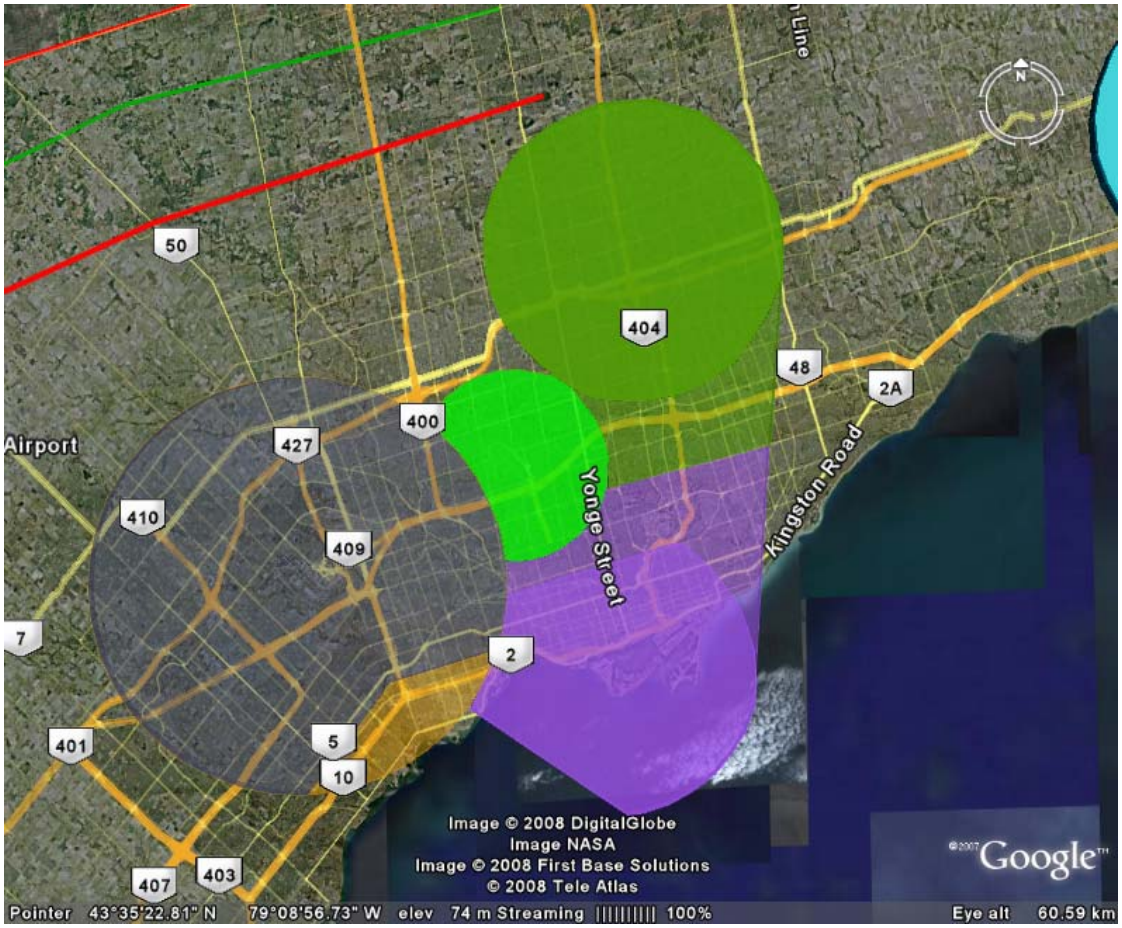
Proposals
Extend the zone approximately 2.5 nm north. The zone will reach north to meet the YKZ zone near Lawrence Ave. The new control zone boundary will share a common boundary with the new Buttonville extended control zone and Downsview (CYZD) and Toronto (CYYZ) zone boundaries (see map below).

Raise control zone height to 2,500’ ASL

Rationale
The rationale for extending the control zone is the same as for extending the Buttonville control zone to the south - closes the gap between the two control zones. The same rationale for raising the Buttonville control zone applies to City Centre plus it provides another usable altitude over the city for sight-seeing.

Note: The VFR route along the Don Valley Parkway depicted in the City Centre CFS VFR Terminal Procedures Chart (VTPC) will be removed since this route will now be included in the expanded City Centre and Buttonville control zones and when required, pilots will receive routing instructions from ATC in this area.

Buttonville and City Centre Control Zone Changes



Hamilton

Proposals

Increase control zone radius from 5 nm to 7nm, except to the southwest, where a line running parallel to RWY 12/30, 5nm from the field would bisect the arc (See map below).

Increase control zone height from 4,000’ ASL to 4,500’ ASL.

Remove the ‘approach awareness’ area published on the VTA and VTPC for runway 06

Rationale

The ICAO standard for a control zone with a 10,000’ runway is a radius of 7nm. The increased radius encompasses the Binbrook NDB (Final Approach fix for Runway 30) and provides additional protection for IFR aircraft on approach for runway 12 in an area of heavy VFR activity.

The ‘cut-out’ at 5 nm to the south west keeps Grande River water aerodrome outside the zone to allow seaplanes to operate ‘unrestricted’. The natural boundary of the Grand River provides a visual reference for east/west bound aircraft that wish to avoid the control zone.

The increase in height to 4,500’ ASL provides better protection between IFR and VFR traffic in the area by increasing the ‘containment’ of jet traffic departures and for proposed RNP arrivals that will not follow conventional IFR arrival routes. Further this also serves to enhance the efficiency of IFR operations at Hamilton.

The approach awareness area for runway 06 is not required since IFR approaches are seldom conducted by Air Carrier aircraft in VMC to this runway.

Kitchener / Waterloo

Proposal
Publish an approach awareness area for runway 25 on the VTA similar to those published for Hamilton.

Rational
With the increase in jet traffic into Kitchener it is important that VFR aircraft operating in this area are aware of the potential for conflict.

Flight Training and Common Frequency Areas (CFA)

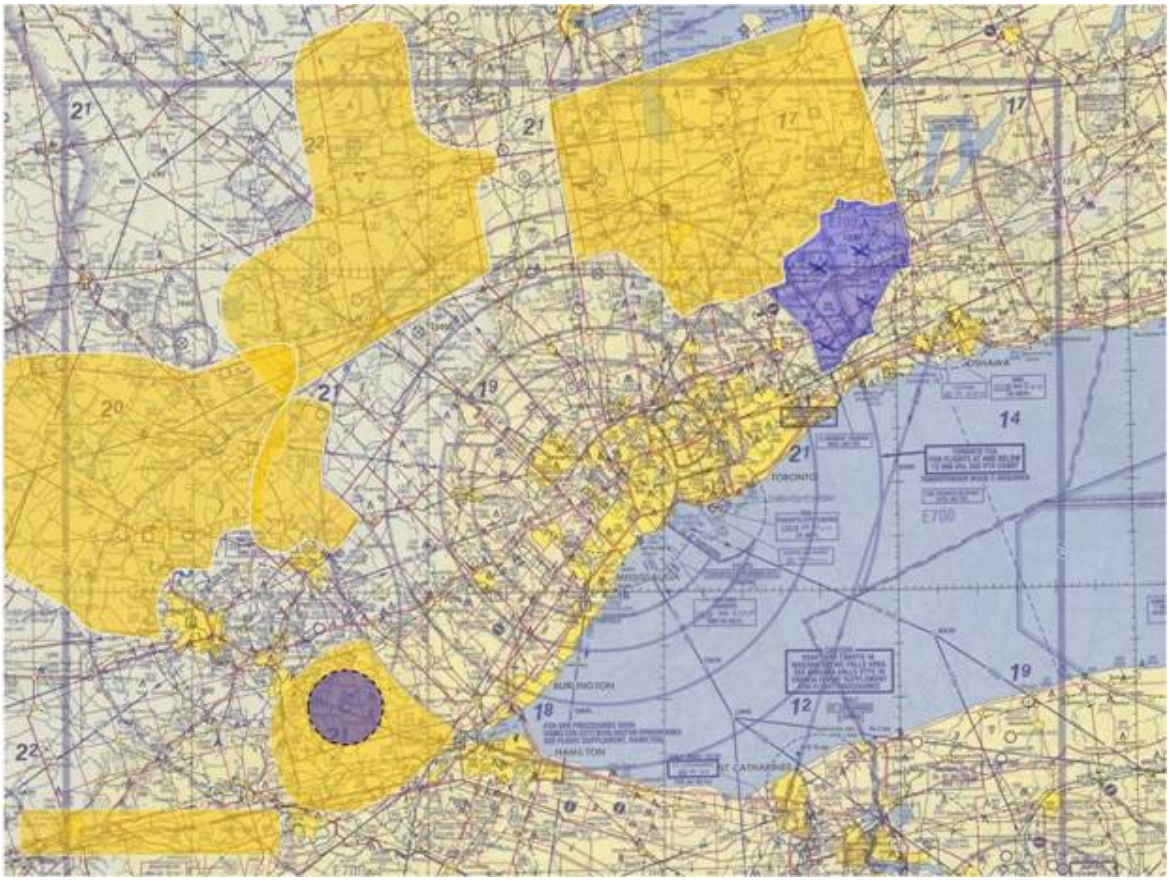
Background

Flight training in the Toronto area continues to grow and place additional demands on the available airspace. Several flight schools were asked to provide the location of their training areas so they could be identified and considered for publishing on maps and charts. The result was that almost all the airspace surrounding Toronto out to approximately 55 nm is used for flight training (see map below). The size of the area used for training and the large number of training aircraft involved means it is not practical to contain and segregate training into defined areas such as CYAs or using the Claremont model.

In addition to flight training, other general aviation activity is occurring in the same airspace, including glider operations (sailplane and hang glider), parachute drops, ultralight operations, aerobatics and aircraft that are simply transiting through the area. It is important that all pilots operating in the Toronto area are aware of the extent and degree of flight activity.
Pilots have indicated their concern that there is no common, published air to air frequency for coordinating their flights in the Toronto area. This lack of common, congestion-free, air to air radio

frequency and standard operating and communication procedures, has resulted in a decrease in situational awareness for pilots involved in flight training and other GA activity in the Toronto area.

Flight Training Areas



Proposal

NAV CANADA intends to obtain three special use frequencies from Industry Canada. The airspace surrounding Toronto would then be divided into three areas and one of these three common frequencies will be assigned to each area (see map below). This will result in three Common Frequency Areas (CFA). The Claremont training area would no longer be depicted on maps or charts and will be consolidated with CFA #1. The common frequencies would be published on the VTA and in the CFS and will be promoted through brochures and an AIC. They would be used for pilot to pilot communications and will not be used or monitored by ATC.

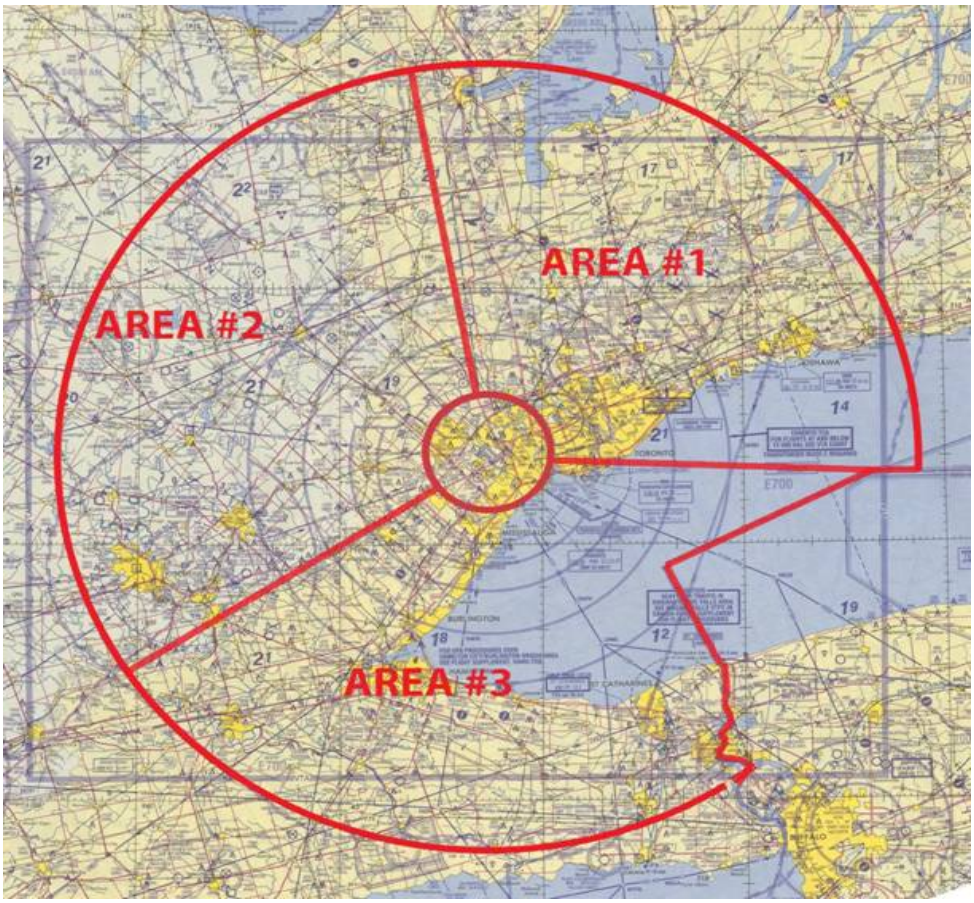
NAV CANADA in collaboration with the flight training, soaring and other GA organizations will also develop guidelines for flight and communication procedures that feature the three CFA. These procedures will be published on the VTA, in the CFS including the Toronto VTPC, and distributed through Brochures.

Rationale

A common frequency will allow pilots to communicate and coordinate their activities which will result in an increase in situational awareness. Three frequencies distributed amongst three areas will help to mitigate frequency congestion.

The development and promotion of better pilot operating and communication procedures will help to ensure effective and efficient use of the three common frequencies and safe aircraft operations within the three CFAs.

Common Frequency Areas (CFA)



VFR Routes

Proposal

VFR routes have been requested for transit around the Toronto area for some time. Common routes are naturally occurring now. Formal, published VFR routes for transit through the Toronto area will be developed in consultation with pilots. The routes will have names, be unidirectional with no fixed altitudes, anchored with easily identified reporting points and to the extent practical follow prominent surface features to facilitate navigation. Pilots who seek radar service may be instructed to fly a published route in Class C airspace, or may elect to fly a route below the Class C airspace, where a clearance from ATC is not required.

Pilot better practices related to use of the VFR routes and communicating when using the routes will be developed, published and promoted.

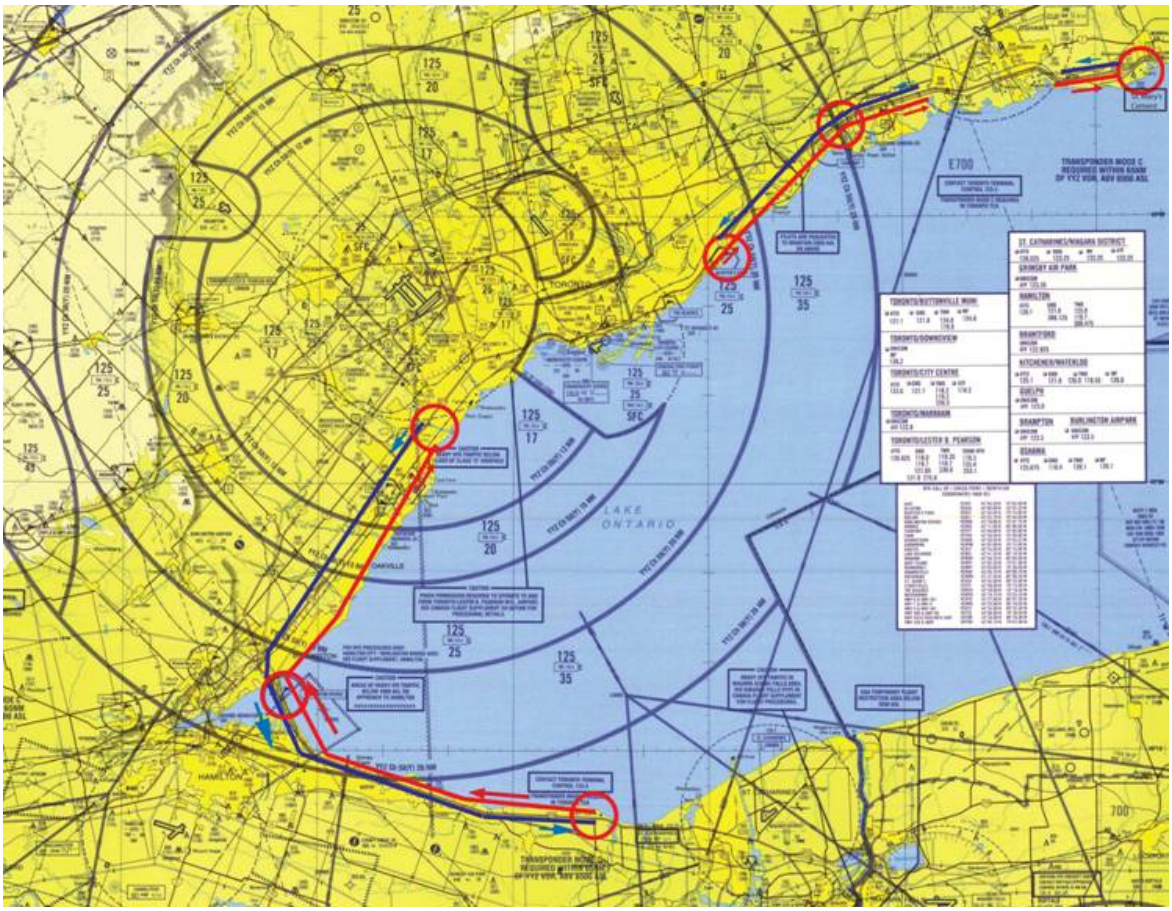
Rationale

An organized route structure along with the promotion of better operating and communication practices will help pilots transit safely and efficiently through the busy Toronto area.

Lakeshore VFR Routes (See map below)

- The routes run from east of Oshawa to west of St. Catharines and basically follow Hwy 401, Hwy 2 and the QEW.
- New reporting points will be established to facilitate transit through the Oshawa and City Centre control zones and for situational awareness with other aircraft.
- Aircraft flying west from Oshawa will track slightly inland from the lakeshore while aircraft traveling the opposite direction will track on the shoreline or slightly offshore.
- Pilots will use the new CFA #1 east of CYTZ and the CFA #3 west of CYTZ for communicating position and intentions when transiting below the TCA and when not on ATC frequencies.

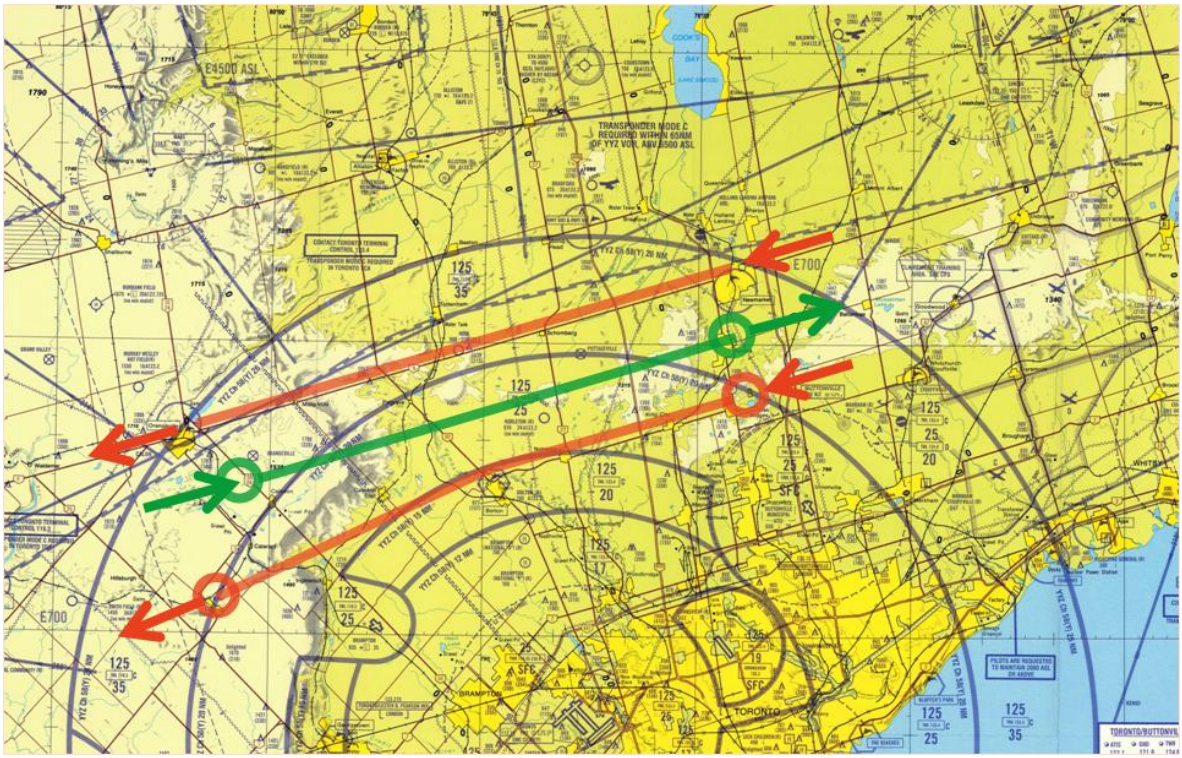
Lakeshore VFR Routes



North VFR Routes (See map below)

- Three VFR routes are proposed in order to better distribute traffic and reduce the potential for congestion on the routes.
- New reporting points will be established to 'anchor' and help identify the beginning and end of the routes and for situational awareness.
- Pilots will use the new CFA frequencies (CFA #1 frequency and CFA #2 frequency) for communicating position and intentions when transiting on the routes below the TCA.

North VFR Routes



Terminal Control Area (TCA) Class C Airspace

Proposal
The floor or bottom of the TCA Class C airspace rings will be raised so the airspace boundary is just above a useable VFR altitude. (e.g. "Above" 1,700'). In practice this will permit pilots to operate at 1,700 (or 2,000, 2,500, 3,500 etc) without a clearance into the class C airspace. A clearance would then be required to climb above the altitudes. *Note: Pilots are reminded that when flying under the TCA they are responsible for wake turbulence separation.*

The TCA 'cut-out' for the Brampton Aerodrome will be expanded to the north east parallel to Hwy 10.

Rationale
Establishing the TCA floors "Abv" the designated altitudes simplifies and provides more flexibility for VFR operations under the TCA, aligns with the top of the control zones and is consistent with the standards for airspace structure.

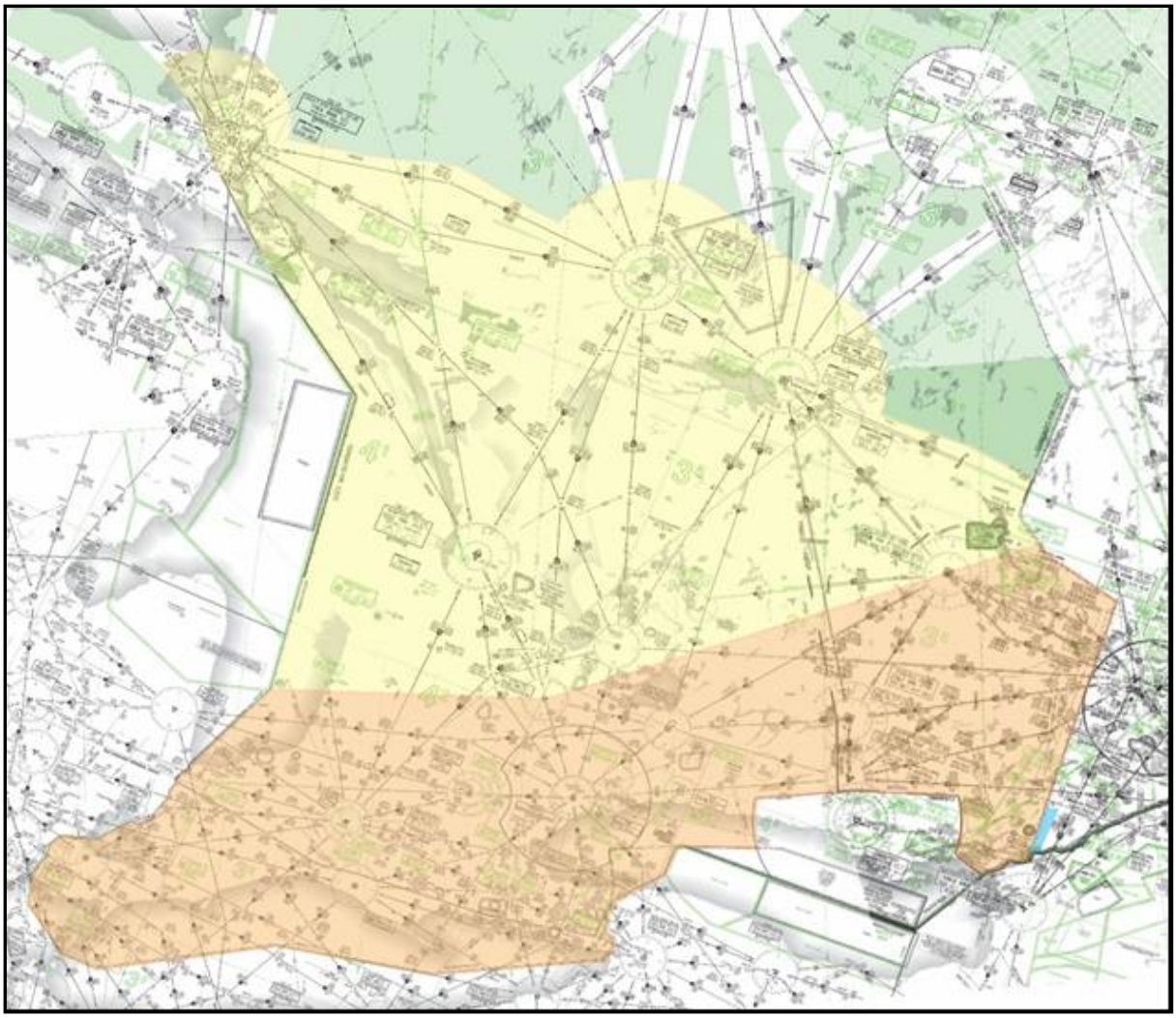
Expanding the TCA cut-out for Brampton will provide additional/higher airspace to facilitate aircraft arrivals and departures at Brampton.

Class E Airspace

Proposal
To establish controlled airspace between low level airways in the Windsor and Montreal corridor, reaching north to North Bay. Between Windsor and Ottawa, controlled airspace would begin at 2,500’ ASL. North of Hwy 89 to North Bay, controlled airspace would begin at 3,500’ ASL (See map below).

Rationale
To facilitate the publication and provision of IFR RNAV routings within controlled airspace for traffic in this corridor below FL180.

Class E at 2,500’ ASL (dark pink)
Class E at 3,500’ ASL (light pink)



Class F Airspace

Proposal
Eliminate any Class F airspace (CYAs and CYRs) that is no longer used or required. For CYAs that remain, publish specific times when they are active and/or establish agreements with the ACC to facilitate IFR operations.

Where there is a high concentration of training, aerobatic, glider or parachute activity, instead of establishing CYAs use symbology and text on maps and charts to depict these areas.

Rationale
Since no IFR flight can be permitted in active Class F airspace, the efficiency of IFR arrival and departure operations can be impacted when Class F airspace conflicts with the airport arrival and departure routes or airways. Class F airspace can also impact the ability of controllers to issue direct, low-level RNAV routings. For VFR operations, diverting around or over Class F airspace that is no longer active is inefficient also.

The current exemptions to the Canadian Aviation Regulations allow aerobatics and parachute drops to occur in controlled airspace without a special flight operations certificate. This mitigates the requirement for CYAs for the purpose of establishing Class G uncontrolled airspace for these activities. (Note: Transport Canada intends to establish regulations that will emulate the current exemptions.)

Through the use of highly discernable symbology and text boxes on maps and charts to depict areas of special, concentrated aircraft activity, pilots will be aware of and able to avoid these areas.