

Virtual Montreal FIR and Boston Virtual ARTCC

Letter of Agreement

Effective: 28 January 2021

Cancels: The agreement between the Montreal FIR (ZUL) and Boston Virtual ARTCC (BVA) dated 23 December 2019.

1. PURPOSE:

This agreement defines the necessary pre-defined air traffic control procedures and coordination responsibilities between the Montreal FIR (ZUL) and Boston Virtual ARTCC (BVA).

2. SCOPE:

The procedures contained herein must apply unless prior coordination has been effected. The procedures contained herein apply during the transfer of IFR aircraft.

3. DISCLOSURE:

BVA and ZUL are affiliated with the Virtual Air Traffic Simulation (VATSIM) network. The procedures outlined in this document are intended exclusively for use in the VATSIM flight simulation environment and shall never be used for actual flight or air traffic control operations. BVA and ZUL are not affiliated with the FAA or NAV CANADA.

4. GENERAL PROCEDURES:

a. BVA/ZUL ATC shall always:

- (1)** Coordinate and resolve, in a practical manner that provides the smoothest experience to the pilot, all deviations from, and situations not addressed by, this document (e.g., non-standard sectorization, holding, pilots unable to accept LOA routes, aircraft above/below LOA altitudes, etc.).
- (2)** Ensure that all aircraft are at a 1X simulation rate prior to initiating handoff.
- (3)** Ensure that aircraft on the same route segment at the same altitude are separated by not less than 5 NM (steady or increasing) or other value specified herein unless greater MIT separation is requested real-time by BVA/ZUL.

(a) NOTE: Separation of less than 10 NM is permitted provided the trailing aircraft is operating at a speed that will permit it to overtake the lead aircraft, and both are vertically separated.

- (4)** Ensure that handoff requests are made at least 10 NM prior to the relevant airspace boundary unless otherwise specified in this document. Handoff requests may be initiated up to 50 NM without prior coordination.
- (5)** Ensure that all conflicts, imminent situations, and MIT separation issues are resolved prior to handoff.
- (6)** Ensure that all scratchpad entries are cleared unless required to convey operational information (e.g. “M80” for assigned Mach number, “H####” for assigned heading) not coordinated by other means (e.g. private message, verbally, etc.).
- (7)** Ensure the data block is formatted as follows:
 - (a)** For aircraft climbing to an altitude lower than the flight planned altitude:
 - a. If the altitude is consistent with an LOA procedure, no entry.
 - b. If the altitude is non-standard or not contained within this LOA, a temporary altitude reflecting the cleared altitude.
 - (b)** For aircraft descending to meet an issued crossing restriction, a temporary altitude with the applicable crossing altitude.
 - (c)** For aircraft descending to an assigned altitude, no temporary altitude is used, and the filed/planned altitude is amended to the new cleared/assigned altitude.
 - (d)** No scratchpad, except if specific control instructions that differ from LOA procedures have been issued. In these cases, the alternate instruction shall be verbally or textually included as well as included in the scratchpad. Scratchpad entries may include:
 - a. Indicated speed restrictions (e.g., “S210”, “S270+”); clients capable of 4-characters remove the “S” if needed (i.e., “270+”)
 - b. “M” for Mach speed restrictions (e.g., “M81”, “M78+”)
 - c. “H” for heading assignments (e.g., “H230”)
 - d. “H” and direction for deviations (e.g., “H15L” for 15 degrees left of track)

5. CONTROL ON CONTACT:

- a.** For aircraft transiting between Montreal Terminal and ZBW, the receiving sector may assume control for:
 - (1) A turn not to exceed 30 degrees within 20nm of the lateral boundary.
 - (2) Turns and descent for aircraft landing in Montreal Terminal Area within the lateral confines of the CARTR arrival corridor, when it is active (see section 8. e. and attachment 3). 1.5nm of separation must be provided from the arrival corridor boundary.
- b.** For enroute aircraft transiting between ZUL and ZBW, the receiving sector may assume control for a turn not to exceed 30 degrees and any altitude change, within 20nm of the boundary.

6. ZBW TO ZUL:

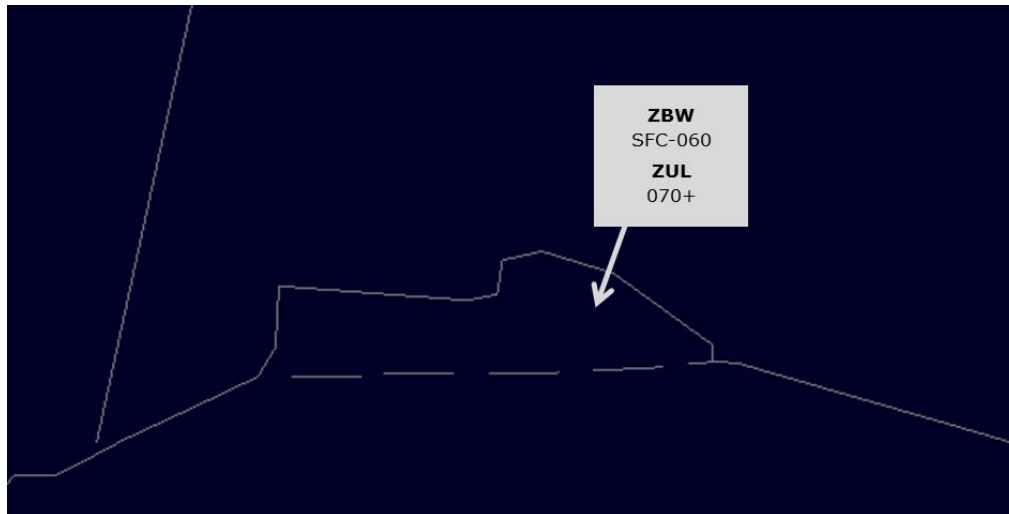
- a.** Clear YUL TCA arrivals to:
 - (1) Montreal (CYUL) on the CARTR STAR, descending to cross EBDOT at 11,000'.
 - (2) Mirabel (CYMX) and St-Hubert (CYHU) via LATTs EBDOT DUNUP DIRECT and descending to cross EBDOT at 11,000'.
- b.** Approaches at KMSS and KMAL:
 - (1) Coordinate for the RNAV Runway 23 Approach at both airports.
 - (2) Ensure aircraft on these approaches enter Montreal airspace at or below 6,000'.
- c.** Approaches at KFSO:
 - (1) Coordinate with Montreal Terminal for IFR approaches at KFSO.
 - (2) Ensure aircraft will enter Montreal's airspace at 3,000' or below.
- d.** Ensure that Ottawa (CYOW) Terminal Arrivals from the east/south will enter ZUL at or below FL220 via the DEANS STAR. Aircraft should be direct BUGSY; aircraft south of BUGSY can also be routed direct CYRIL to join the DEANS STAR.
- e.** Ensure that Ottawa (CYOW) and Montreal (CYUL) Terminal Arrivals from the northwest will enter ZUL at or below FL280. CYOW arrivals shall be routed via CYRIL and the DEANS arrival. CYUL arrivals shall be routed via DAVDA and the IMPAC STAR.
- f.** Ensure that aircraft proceeding to CYFJ enter ZUL at or below FL280.

7. ZUL TO ZBW:

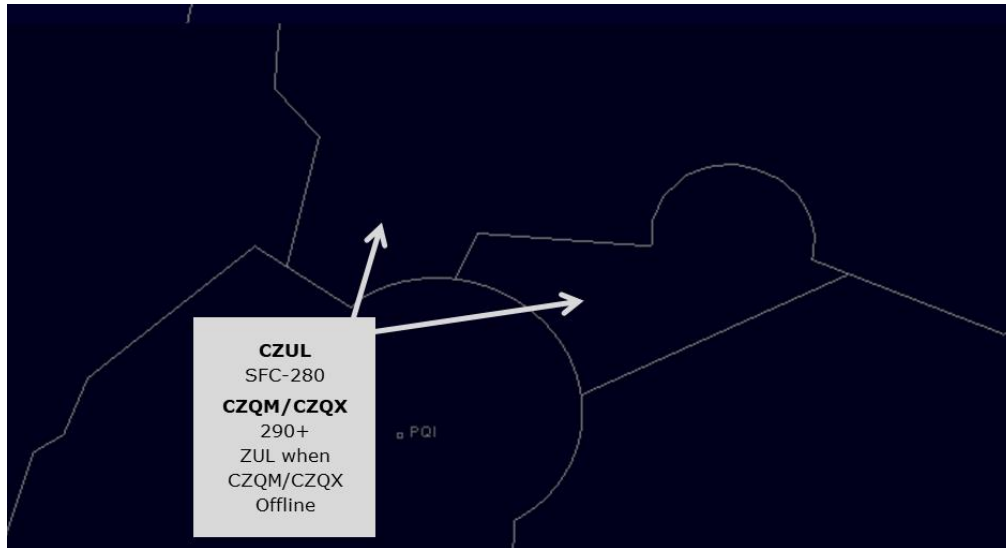
- a. Ensure Montreal Terminal departures are cleared to climb to FL230 or the requested lower altitude. Aircraft shall be routed via FAWNS, BUGSY, or WARDS. Without coordination, aircraft may be cleared direct ALB or HANAA if they are established on or west of a track between BOSAM and ALB.
- b. Ensure that Ottawa Terminal departures requested FL280 or above are handed off cleared to FL270. ZBW has control for climb to FL280.
- c. APREQ required for all departures from Kingston (CYGK) (when CZYZ offline), Maxville (Bourdon Farm) (CMB7) and Brockville (CNL3) that will enter Boston's airspace.

8. AIRSPACE DELEGATION:

- a. The airspace at and below 6,000' is delegated to Boston Center as shown below:
 - (1) Boston Center shall request an approval (APREQ) for all IFR approaches and departures from Cornwall airport (CYCC).



- b. The sector known as Sept-Isle (ZV), as shown below, is operated by:
- (1) Montreal, at or below FL280 (Hauterive sector).
 - (2) Moncton/Gander above FL280, while staffed.
 - (3) Montreal Center above FL280, while Moncton/Gander is offline.



- c. If Montreal will not operate/control the Sept-Isle sector at FL290 or above while Moncton Centre is offline, Montreal shall coordinate accordingly with BVA.
- d. The sector known as Concordia (CN) (excluding airspace within CYTR MTCA), as shown below and in attachment 2, is operated by:
- (1) Toronto Centre, from surface to FL230.
 - (2) Montreal Centre, from surface to FL230, while Toronto Centre is offline.

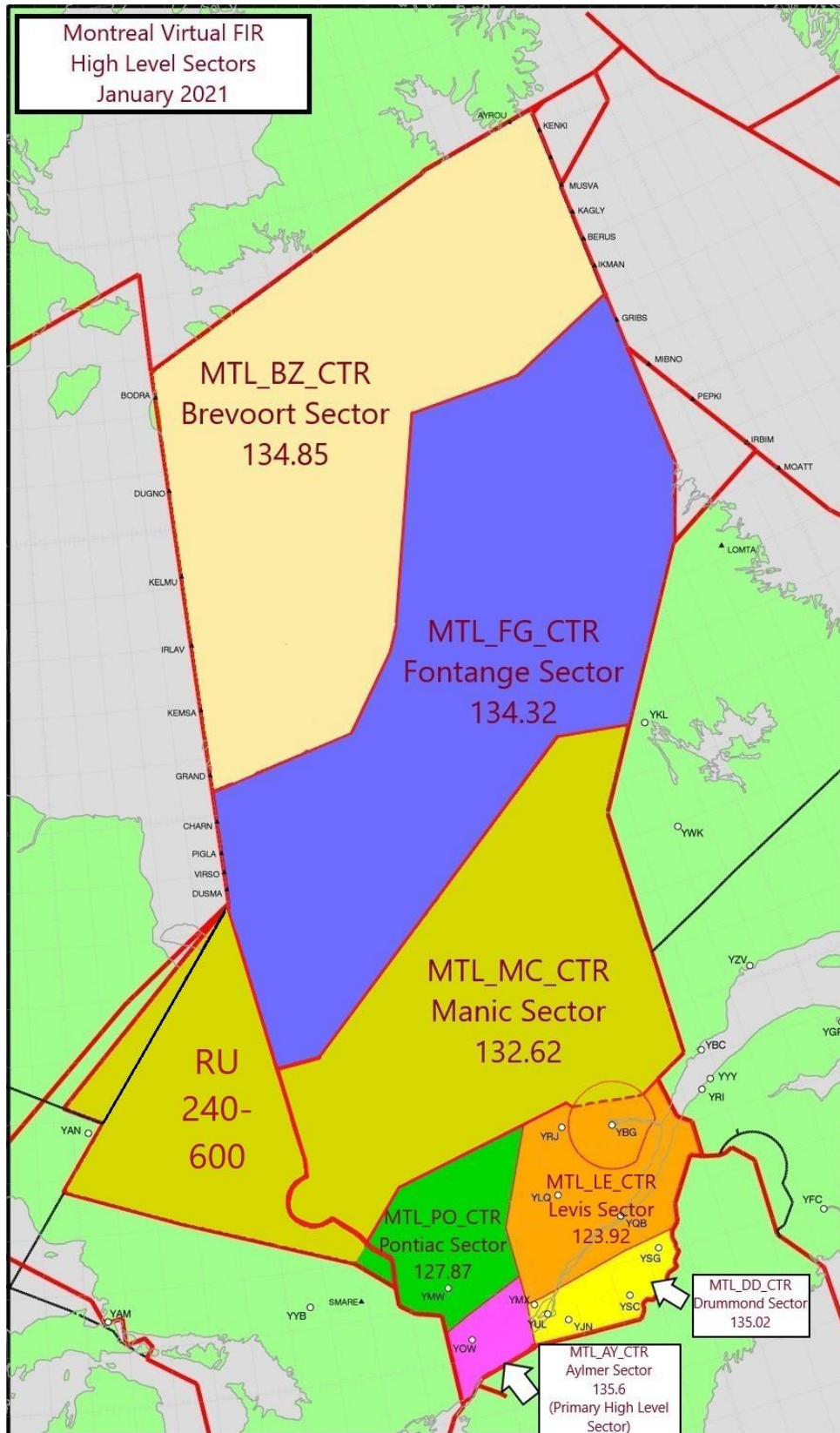


- e. The CARTR arrival corridor, as shown in attachment 3, is delegated to Montreal Terminal between 8,000' and 10,000'. Montreal Terminal must keep 1.5 NM of separation from the arrival corridor boundary.

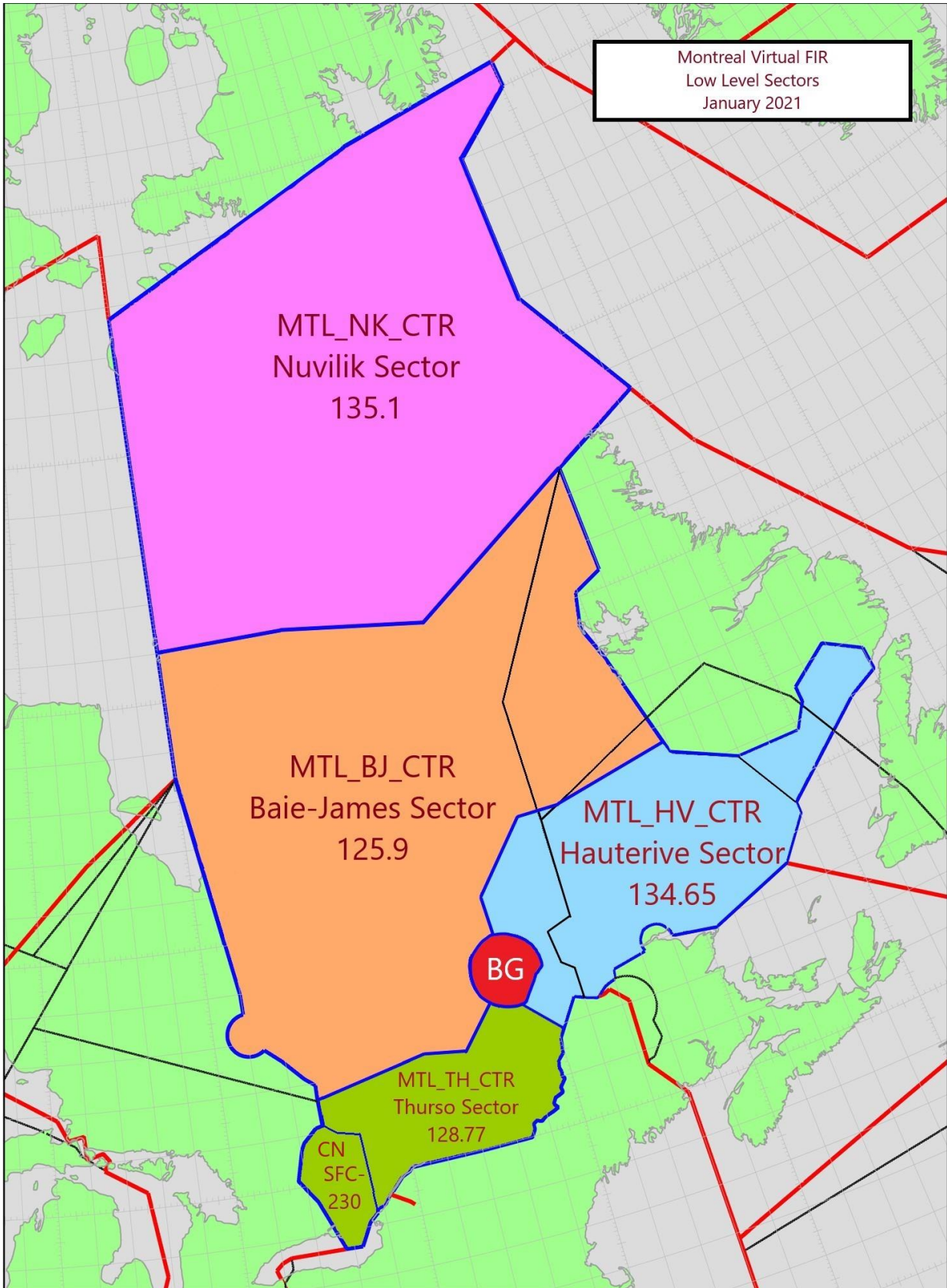
9. ZBW SECTOR SPLITS

- a.** When Boston Center is combined, it will be operated as BOS_CTR on frequency 134.700 (CON37).
- b.** Boston Center splits will be coordinated with adjacent facilities using the air traffic control channels. Current/in-use sector splits will be published at the following URL: airspace.bvartcc.com.

ATTACHMENT #1: ZUL HIGH SECTOR SPLITS

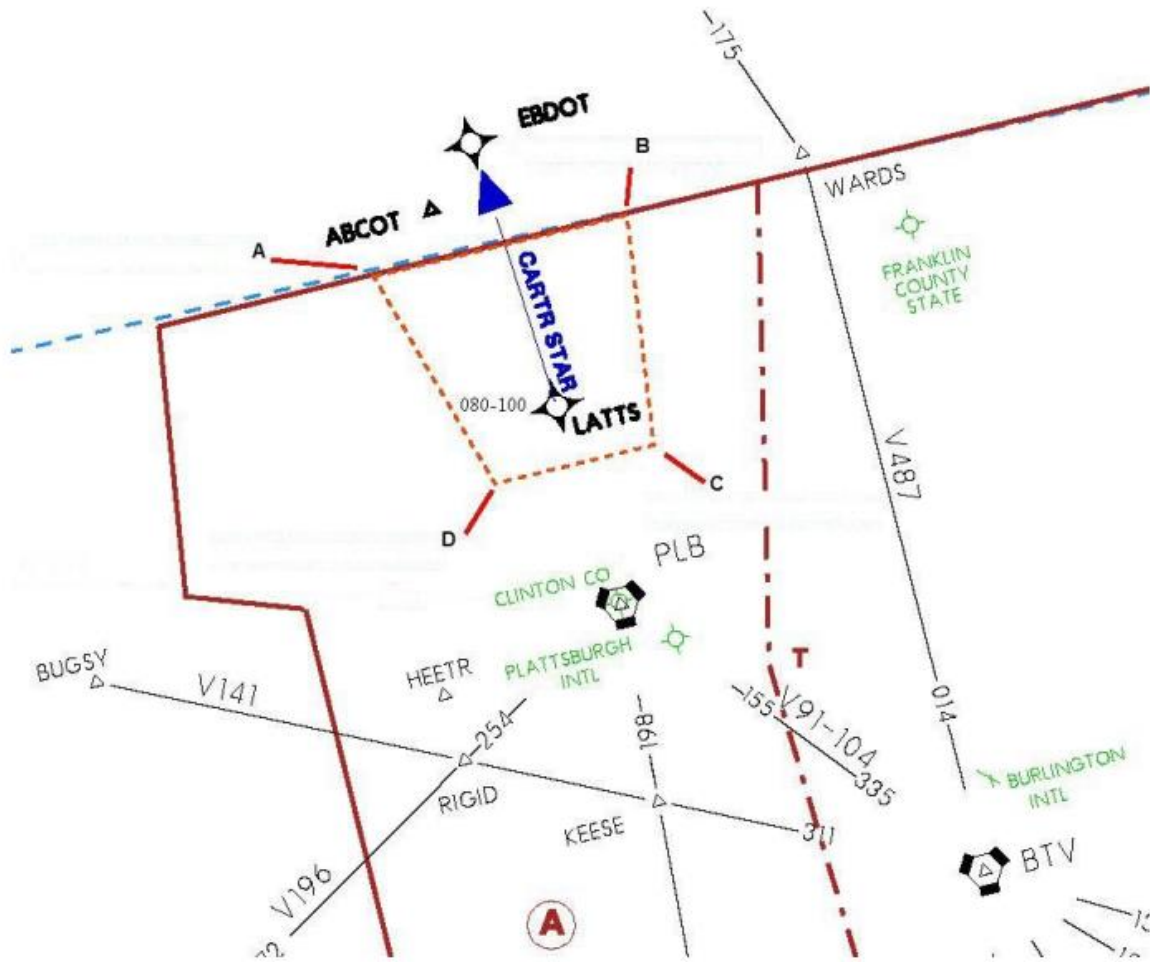


ATTACHMENT #2: ZUL LOW SECTOR SPLIT



ATTACHMENT #3: CARTR ARRIVAL CORRIDOR

Point	Latitude / Longitude
A	450010/734301
B	450035/732424
C	444829/732629
D	444827/733800



ATTACHMENT #4: ZBW PROCEDURES FOR ZUL ARRIVALS

Airport	Direction	Route	Altitude
CYUL	From the South	CARTR STAR	EBDOT at 11,000'
	From the West	DAVDA IMPAC STAR	AOB FL280
CYOW	From the East	BUGSY DEANS STAR	AOB FL220
	From the South	CYRIL DEANS STAR	CYRIL at 11,000'
	From the West	ART CYRIL DEANS STAR	AOB FL280
CYMX CYHU	Any	LATTS EBDOT DUNUP	EBDOT at 11,000'
CYFJ	Any	N/A	AOB FL280