

**VATUSA CLEVELAND ARTCC AND VATCAN TORONTO FIR  
LETTER OF AGREEMENT**

**EFFECTIVE: SEPTEMBER 28, 2018**

**SUBJECT: INTERFACILITY COORDINATION**

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**1. PURPOSE**

This Letter of Agreement defines inter-facility responsibilities and communication procedures between VATUSA Cleveland ARTCC (ZOB) and VATCAN Toronto FIR (ZYZ).

**2. DISCLAIMER**

Information contained herein is designed and specifically for use in a virtual air traffic control environment. It is not applicable, nor should it be referenced for live operations.

**3. CANCELLATION**

VATUSA Cleveland ARTCC and VATCAN Toronto FIR Letter of Agreement dated March 10, 2012 is hereby cancelled.

**4. RESPONSIBILITIES**

Airspace delegation between ZOB and ZYZ must be in accordance with Attachment A, B and C of this document.

**5. GENERAL PROCEDURES**

- a. 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.).
- b. Ensure that all aircraft are at a 1X simulation rate prior to initiating handoff.
- c. Ensure that aircraft on the same route segment at the same altitude (or different altitudes, but same destination airport within ZOB or ZYZ) are separated by not less than 10 nautical miles (steady or increasing) or other value specified herein unless greater MIT separation is requested real-time by ZOB/ZYZ.
  - i. NOTE: Separation of less than 10 nautical miles 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.
- d. Ensure that handoff requests are made at least 10 nautical miles prior to the relevant airspace boundary unless otherwise specified in this document. Handoff requests may be initiated up to 50 nautical miles without prior coordination.
  - i. NOTE: Transfer of radio communications can be delayed no later than the lateral boundary.
- e. The receiving ARTCC has control for beacon code changes and turns, when aircraft are within 20 nautical miles of the common ZOB/ZYZ boundary. The maximum turn must not exceed 20 degrees off course and must not affect another sector without proper coordination.
- f. 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.).

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- g. Ensure the data block is formatted as follows:
- i. Data blocks must reflect the aircraft's assigned altitude at the time of handoff.
  - ii. 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:
    1. Indicated speed restrictions (e.g., "S210", "S270+"). Clients only capable of 4-characters remove the "S" if needed (e.g., "270+")
    2. "M" for Mach speed restrictions (e.g., "M81", "M78+")
    3. "H" for heading assignments (e.g., "H230")
    4. "D" and direction for deviations (e.g., "D15L" for 15 degrees left of track)

**6. FROM ZOB TO ZYZ**

- a. ZOB shall route/restrict aircraft in accordance with Attachment E.
- b. When Toronto Center is offline, CYYZ arrivals from ZOB may be handed off directly to the appropriate Toronto Arrival controller (CYYZ\_APP) without pre-coordination.
- c. Unless otherwise coordinated, ZOB is not required to handoff aircraft enroute through ZYZ airspace on the Q822 airway. However, a point out is required.

**7. FROM ZYZ TO ZOB**

- a. ZYZ shall route/restrict aircraft in accordance with Attachment F.
- b. When Toronto Center is offline, CYYZ departures into ZOB may be handed off directly to the appropriate Cleveland Center controller (CLE\_CTR) without pre-coordination.
- c. ZYZ shall ensure that Toronto area airport departures routed via AHPAH and BMLAH or routed to the southeast, are climbing to FL230 or the requested altitude, whichever is lower.
- d. ZYZ shall ensure that Toronto area airport departures are not routed via WOZEE, unless arriving at KBUF or a Buffalo satellite airport (see Attachment D).
- e. ZYZ shall coordinate all KIAG arrivals with Buffalo Approach (BUF\_APP). In order to properly vector aircraft for an approach, this coordination shall include any specific altitudes or headings prior to handoff.

**8. ATTACHMENTS**

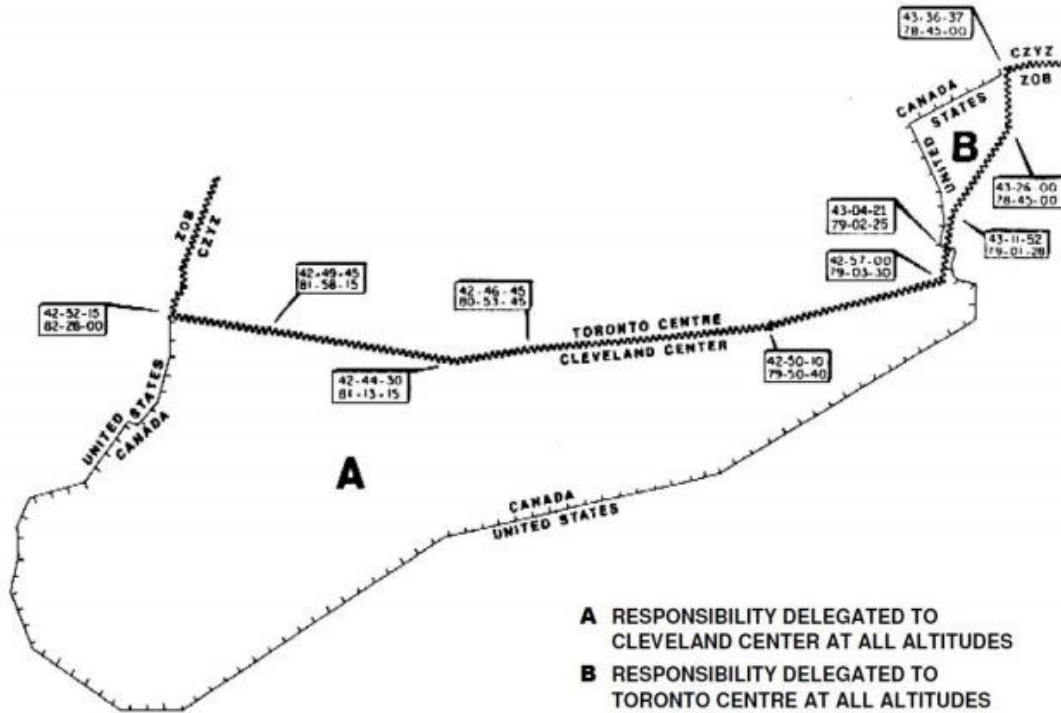
- a. Attachment A – Airspace Delegation Chart 1
- b. Attachment B – Airspace Delegation Chart 2
- c. Attachment C – Airspace Delegation Chart 3
- d. Attachment D – Area Airport Listings
- e. Attachment E – Permanent Route/Altitude Restrictions from ZOB to ZYZ
- f. Attachment F – Permanent Route/Altitude Restrictions from ZYZ to ZOB

/Amin Abraham/  
Air Traffic Manager  
Cleveland ARTCC, VATUSA

/Dean Roy/  
FIR Chief  
Toronto FIR, VATCAN

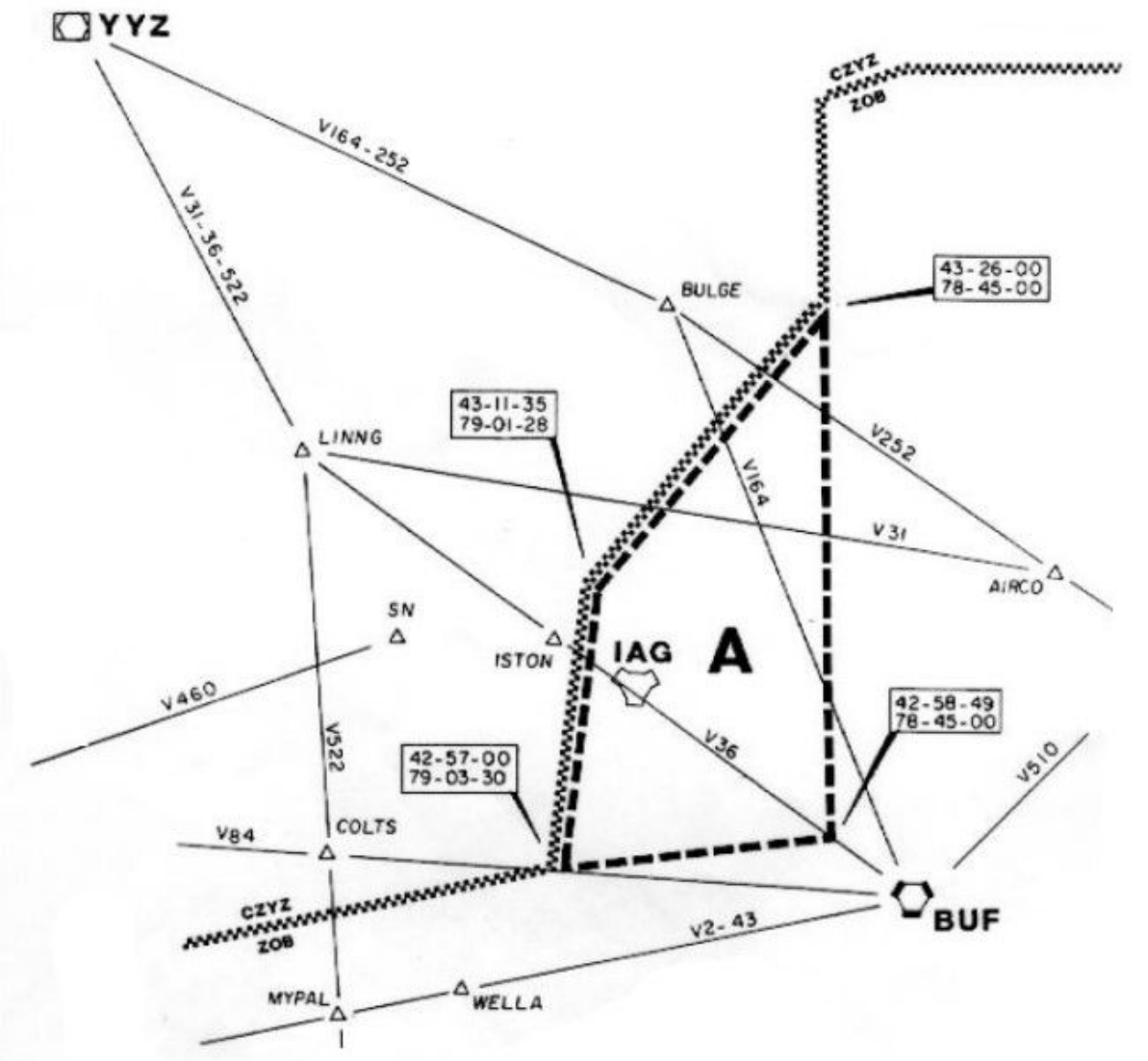
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ATTACHMENT A - AIRSPACE DELEGATION CHART 1



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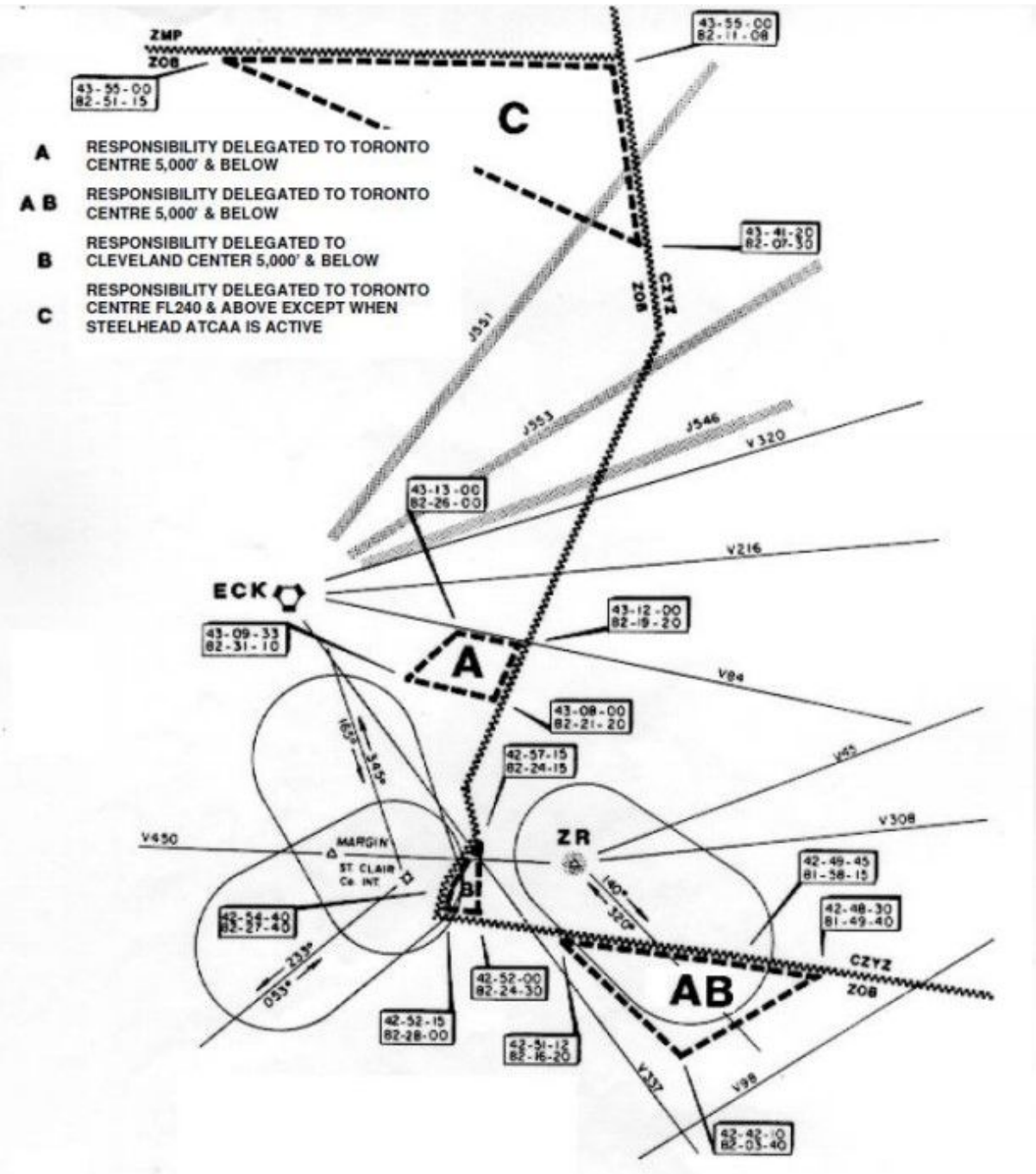
ATTACHMENT B - AIRSPACE DELEGATION CHART 2



**A** RESPONSIBILITY DELEGATED TO: BUFFALO APPROACH SFC-100  
TORONTO CENTER 110-FL230  
CLEVELAND CENTER FL240-FL600

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ATTACHMENT C - AIRSPACE DELEGATION CHART 3



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**ATTACHMENT D - AREA AIRPORT LISTINGS**

<b>Area</b>	<b>Satellite Airport Codes</b>
Detroit Area (D21)	CYQG, KARB, KDET, KYIP, KONZ, KOZW, KTTF, Y47, 1D2, KPTK, 3TE, KVLL
Buffalo Area (BUF)	9G3, 9G6, 9G0, KDKK, 0G0, KIAG

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**ATTACHMENT E - PERMANENT ROUTES/ALTITUDE RESTRICTIONS  
FROM ZOB TO ZYZ**

<b>Arrival Airports(s)</b>	<b>Qualifier</b>	<b>Route Via</b>	<b>Altitude (Cross ZOB/ZYZ common boundary, unless otherwise noted)<sub>1</sub></b>
CYYZ	SE of CYYZ <sub>2,3</sub>	...WOZEE.LINNG# / VERKO#	ISTON AOB 17,000'
		...OXMAN.LINNG# / VERKO#	MYPAL AOB 16,000'
		...LOKPU.LINNG# / VERKO#	LOKPU AOB 14,000'
	SW of CYYZ <sub>4</sub>	...FINGL.NUBER# / NAKBO#	FINGL AOB FL190
		...QWERI.NUBER# / NAKBO#	KNOOK AOB FL240
		...APDAX.NUBER# / NAKBO#	APDAX AOB FL230
		...MONEE.NUBER# / NAKBO#	
	CYHM	East of JHW	...COLTS.COLTS#
...BUF V84 THORL HM			AOB 11,000'
JHW to YQO		...ERI V37 KYUGA HM	AOB 11,000'
West of YQO		...YXU V84 NORCH HM	AOB FL290
CYTZ	North of BUF	...ILIXU#	AOB 8,000'
	BUF to YQO		AOB 11,000'
	West of YQO		AOB FL330

<sub>1</sub> Aircraft whose destination airports lie within 60NM of the ZOB/ZYZ common boundary must enter the receiving facility's airspace AOB FL230 unless otherwise noted in Attachment E and/or Attachment F.

<sub>2</sub> For aircraft arriving into CYYZ from the southeast, ZOB shall ensure that jet aircraft are routed via LINNG#, while prop and turboprop aircraft are routed via VERKO#.

<sub>3</sub> Whenever CYYZ is landing runway 33L & 33R, all aircraft arriving from the southeast routed via the LINNG# and VERKO# arrivals, shall be restricted to cross LINNG at 7,000'.

<sub>4</sub> For aircraft arriving into CYYZ from the southwest, ZOB shall ensure that jet aircraft are routed via NUBER#, while prop and turboprop aircraft are routed via NAKBO#.

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**ATTACHMENT F - PERMANENT ROUTES/ALTITUDE RESTRICTIONS  
FROM ZYZ TO ZOB**

<b>Arrival Airports(s)</b>	<b>Qualifier</b>	<b>Route Via</b>	<b>Altitude (Cross ZOB/ZYZ common boundary, unless otherwise noted)<sub>4</sub></b>
KDTW	RNAV	...BOBTA.CUUGR# / TPGUN# <sub>5</sub>	GGUCE AOB FL300
	Non-RNAV	...SPICA#	AOB FL220
KDTW <sub>1</sub>	RNAV	...OKLND# / GIGGY#	AXXIS AOB 14,000'
	Non-RNAV	...YXU RCADE PSI	AOB 14,000'
		...YXU RCADE YQG	
KCLE	East of YQO	...ERI/JHW.CXR#	AOB FL220
	West of YQO RNAV	...DOZRR.BRWNZ#	
	West of YQO Non-RNAV	...HIMEZ KCLE	
KBUF <sub>2</sub>		...WOZEE/BUF	AOB 9,000'
KIAG <sub>3</sub>		...KIAG	AOB 4,000'
KERI		...ERI	AOB 11,000'
KROC		...ROC	AOB 15,000'
KFNT		...FNT	AOB FL240
KMBS		...MBS	AOB FL240
KMTC		...YXU KMTC	AOB 12,000'
KSYR		...SYR	AOB FL290

<sub>1</sub> Detroit Satellite Arrivals (see Attachment D)

<sub>2</sub> KBUF and Buffalo Satellite Arrivals with exception of KIAG (see Attachment D)

<sub>3</sub> Refer to section 7.e of this document for common KIAG procedures.



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<sup>4</sup> Aircraft whose destination airports lie within 60NM of the ZOB/ZYZ common boundary must enter the receiving facility's airspace AOB FL230 unless otherwise noted in Attachment E and/or Attachment F.

<sup>5</sup> ZYZ shall ensure that RNAV aircraft landing at KDTW are routed via the proper configuration-dependant STAR. CUUGR# arrival is used when KDTW is in north flow. TPGUN# arrival is used when KDTW is in south flow. ZOB shall advise ZYZ of the flow in use at KDTW.