

**VATUSA CLEVELAND ARTCC AND VATUSA INDIANAPOLIS ARTCC
LETTER OF AGREEMENT**

EFFECTIVE: SEPTEMBER 22, 2018

SUBJECT: INTERFACILITY COORDINATION

1. PURPOSE

This Letter of Agreement defines inter-facility responsibilities and communication procedures between VATUSA Cleveland ARTCC (ZOB) and VATUSA Indianapolis ARTCC (ZID). This agreement is supplemental to procedures contained within FAA Order 7110.65.

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 in the National Airspace System (NAS).

3. CANCELLATION

VATUSA Cleveland ARTCC and VATUSA Indianapolis ARTCC Letter of Agreement dated September 19, 2011 is hereby cancelled.

4. RESPONSIBILITIES

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

5. PROCEDURES

- a. Each ARTCC must route/restrict aircraft in accordance with Attachment D and Attachment E of this document.
- b. 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.).
- c. Ensure that all aircraft are at a 1X simulation rate prior to initiating handoff.
- d. Ensure that aircraft on the same route segment at the same altitude (or different altitudes, but same destination airport within ZOB or ZID) 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/ZID.
 - 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.
- e. 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.
- f. The receiving ARTCC has control for beacon code changes and turns, when aircraft are within 20 nautical miles of the common ZOB/ZID boundary. The maximum turn

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must not exceed 20 degrees off course and must not affect another sector without proper coordination.

- g. 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.).
- h. 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. "H" and direction for deviations (e.g., "H15L" for 15 degrees left of track)

6. ATTACHMENTS

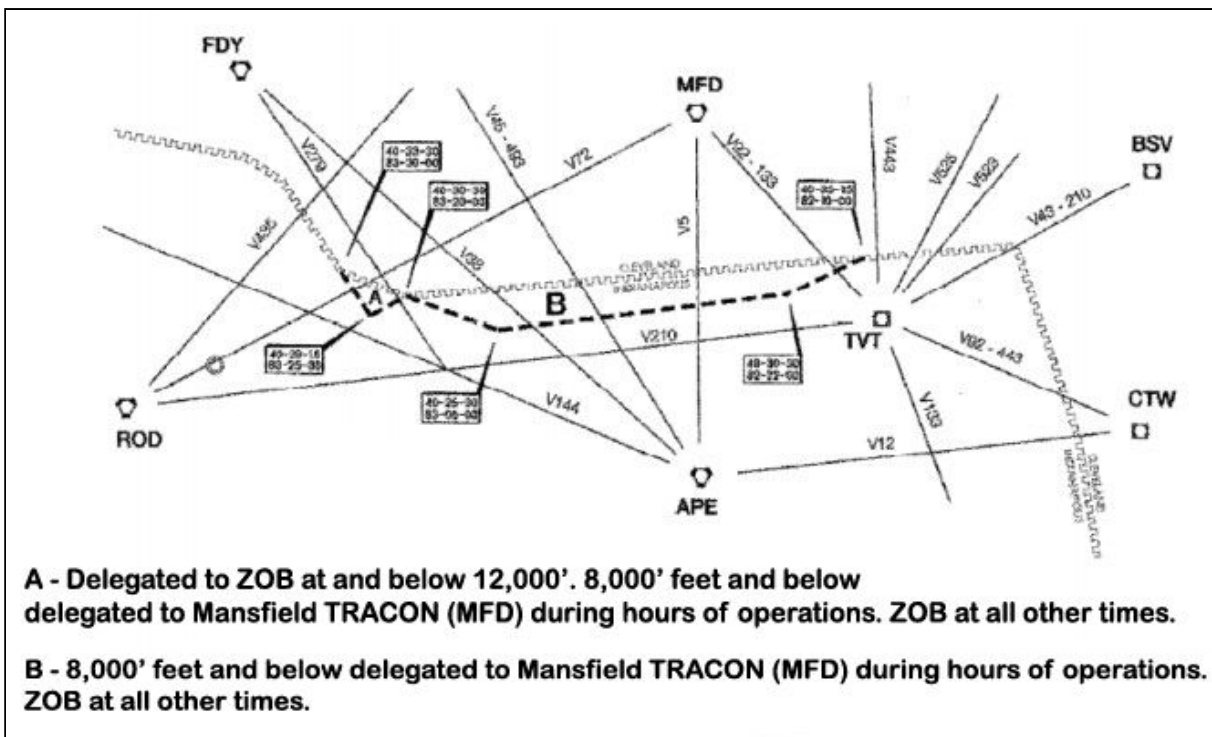
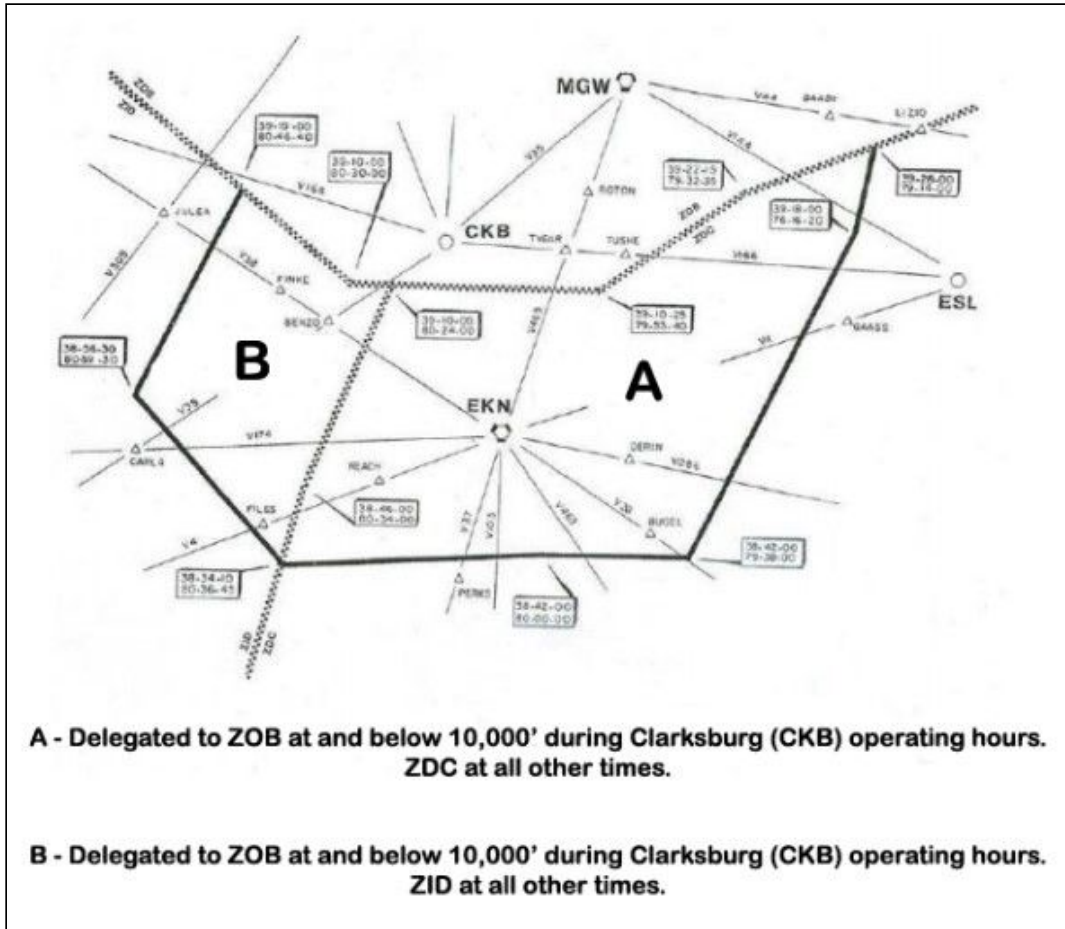
- a. Attachment A – ZID Airspace Delegation to ZOB
- b. Attachment B – ZOB Airspace Delegation to ZID
- c. Attachment C – Area Airport Listings
- d. Attachment D – Permanent Route/Altitude Restrictions from ZOB to ZID
- e. Attachment E – Permanent Route/Altitude Restrictions from ZID to ZOB

/Amin Abraham/
Air Traffic Manager
Cleveland ARTCC, VATUSA

/David Stone/
Air Traffic Manager
Indianapolis ARTCC, VATUSA

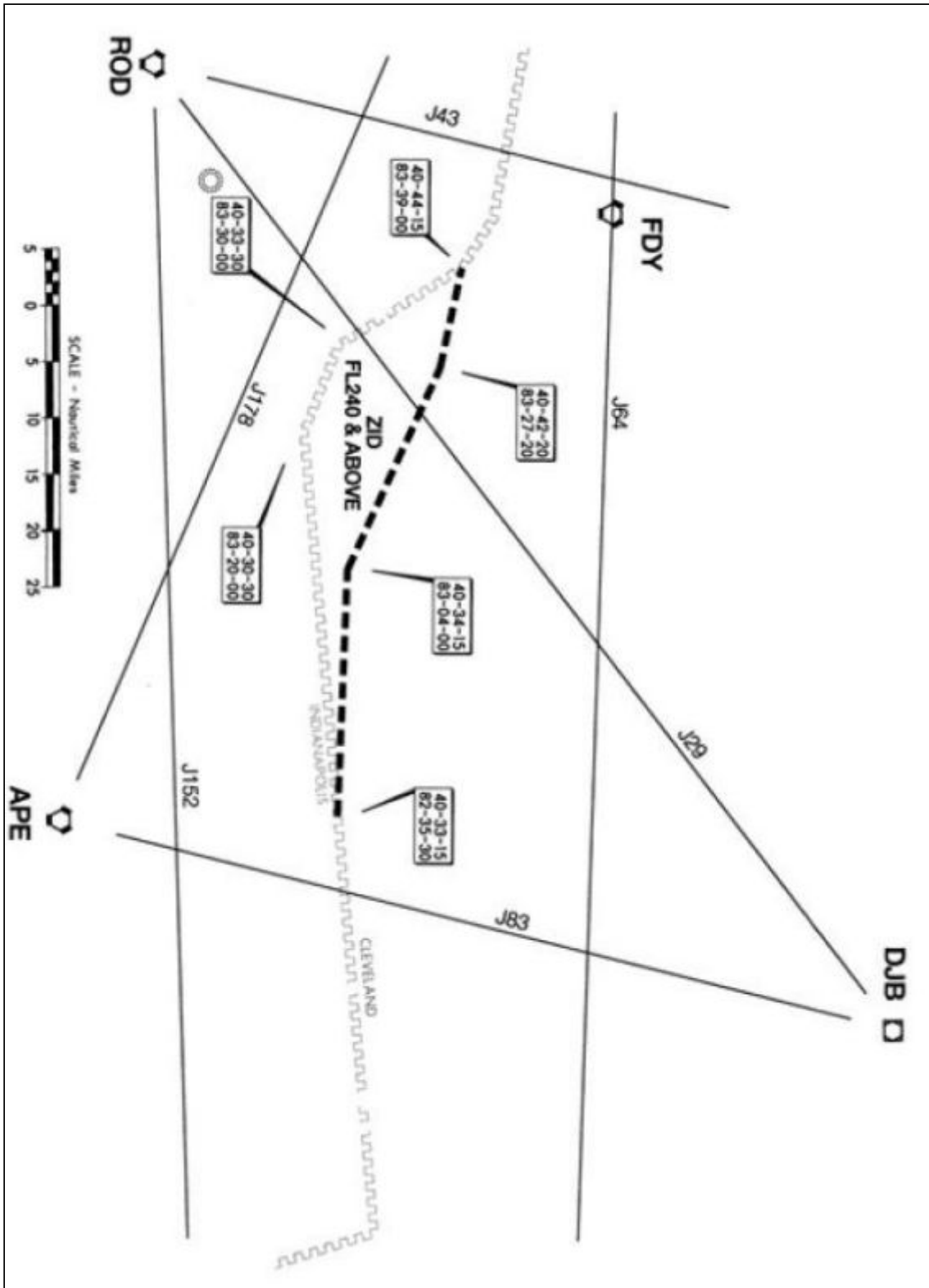
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ATTACHMENT A - ZID AIRSPACE DELEGATION TO ZOB



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ATTACHMENT B - ZOB AIRSPACE DELEGATION TO ZID



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ATTACHMENT C - AREA AIRPORT LISTINGS

Area	Satellite Airport Codes
Detroit Area (D21)	CYQG, KARB, KDET, KYIP, KONZ, KOZW, KTTF, Y47, 1D2, KPTK, 3TE, KVLL

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**ATTACHMENT D - PERMANENT ROUTES/ALTITUDE RESTRICTIONS
FROM ZOB TO ZID**

Arrival Airports(s)	Qualifier		Route Via	Altitude (Cross ZOB/ZID common boundary, unless otherwise noted) ₁
KCVG	East of BUD	RNAV	...APE/CTW.TIGRR#	AOB FL320
		Non-RNAV	...APE/CTW.CINCE#	
	West of BUD		...ROD	ROD AOB FL240
KIND	East of FBC	RNAV	... RINTE.SNKPT#	
		Non-RNAV	...ROD.CLANG#	
	West of FBC	RNAV	...AYRTN SNKPT.SNKPT#	
		Non-RNAV	...FWA.CLANG#	
KSDF	RNAV		...MALDN/UKATS.DLAMP#	
	Non-RNAV		...APE/ROD.RDSTN#	
KCMH	West of MFD		...FBC.GUNNE#	ESSIE AOB 10,000'
	MDF to CTW		...TVT APE	AOB 14,000'
	East of CTW		...BREMN#	FRICC AOB 10,000'
KDAY	West of MFD		...ROD	AOB 14,000'
	East of MFD		...APE.DANEI#	AOB FL280
KCRW	East of CTW		...JPU	AOB 18,000'

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

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

Arrival Airports(s)	Qualifier		Route Via	Altitude (Cross ZOB/ZID common boundary, unless otherwise noted) ₂
KDTW	West of APE	RNAV	...TORRR. HANBL#/LECTR#	TORRR AOB FL210
		Non-RNAV	...DQN.MIZAR#	AOB FL230
	East of APE	RNAV	...JAMOX. BONZZ#/KLYNK#	BOBCT AOB FL300
			...SUBWY. CRAKN#/HTROD#	COLTZ AOB FL300
		Non-RNAV	...TVT DJB DXO	AOB FL300
KDTW ₁	West of APE	RNAV	...TORRR.PETTE#	AOB FL230
		Non-RNAV	..LFD PSI	
	East of APE	RNAV	...BOBCT.FOREY#	AOB FL300
		Non-RNAV	...TVT DJB PSI	
KCLE	West of APE	RNAV	...ROKNN#	HEADZ AOB FL210
		Non-RNAV	...ZABER#	AOB FL190
	East of APE	RNAV	...ROLLN#	GEDDY AOB FL210
		Non-RNAV	...TVT KCLE	AOB FL190
KPIT	North of ZZV	RNAV	...CTW.FEWGA#	CTW AOB FL190
		Non-RNAV	...CTW HLG	
	South of ZZV	RNAV	...HNN/JPU.FEWGA#	AOB FL210
		Non-RNAV	...JPU HLG	

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KCAK		...TVT KCAK	AOB 10,000'
		...JPU BSV	AOB FL230
KMFD		...MFD	AOB 8,000'
KTOL		...VWV	AOB FL200
KCKB		...CKB	AOB 10,000'

¹ Detroit Satellite Arrivals (see Attachment C)

² Aircraft whose destination airports lie within 60NM of the ZOB/ZID common boundary must enter the receiving facility's airspace AOB FL230 unless otherwise noted in Attachment D and/or Attachment E.

³ ZID shall ensure that RNAV aircraft landing at KDTW are routed via the proper configuration-dependant STAR. LECTR#, KLYNK# and CRAKN# arrivals are used when KDTW is in north flow. HANBL#, BONZZ# and HTROD# arrivals are used when KDTW is in south flow. ZOB shall advise ZID of the flow in use at KDTW.