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RDU ATCT/TRACON SOP

Version E – February 12, 2025

RECORD OF CHANGES

Initial Publication – January 3, 2017

- Initial Publication of vZDC RDU ATCT/TRACON SOP

March 25, 2017 (B Revision)

- Added ATIS frequency

July 1, 2023 (C Revision)

- Removed “VOX Channel”
- Added Chapter 2 – Runway Configurations
- IFR initial altitude changed
- Added requirements for VFR departures requesting flight following
- Removed requirement for class C clearance
- VFR initial altitude specified
- Changed departure gates
- Specified when approving pushbacks is required
- Specified areas of control for local control when split
- Updated departure headings for IFRs
- Added requirements for coordination between local control and TRACON
- Updated go around altitude for non-standard headings
- NEW FIG 5-2-1 to better depict local control area when split

July 1, 2024 (D Revision)

- Entire Publication:
  - Formatting changes
- Chapter 1 General:
  - Added standardized sections and subsections
- Chapter 2 Operations:
  - Moved the positions table to this chapter
- Chapter 3 Clearance Delivery:
  - Added 3-1-3 vTDLS
  - Added section 2 departure gates and subsections
- Chapter 4 Ground Control
  - Specified runway crossing procedures for runway 05R/23L
  - Changed jurisdiction over taxiways C, C1, and Z to local control east
  - Added additional information to 4-2-4 pushback procedures
- Chapter 5 Local Control:
  - Added more conditions for departure releases in 5-2-3
- Chapter 6 TRACON:
  - Added table 6-2-1
  - Added 6-3-1 procedures for IFR arrivals
  - Added table 6-3-1

    - Added scratchpad usage for reflecting assigned runway and type approach
    - Added 6-3-3 final radar east/west
    - Delegated Final Radar East as sector which shall provide the arrival sequence to Final Radar West. Added phraseology examples to accompany this change.
    - Added 6-3-4 for satellite arrivals
    - Added 6-3-5 for overflights
    - Added section 4 positions and subsections with updated video maps and diagrams
- Appendix:
    - Added ground control split diagram
    - Updated video map and diagrams
    - Added Surrounding Airspace image

February 12, 2025 (E Revision)

- Entire Publication
    - Formatting/spelling changes
- Updated RDU RVM
- Updated sector configuration and altitude stratums
- Added 6-2-3 Prearranged Coordination Procedures
- Changed Arrival West Frequency
- Added Appendix G showing overlying ZDC sectors
- Removed term “Radar” from TRACON positions

Table of Contents

Chapter 1. General

Section 1. Introduction

1–1–1. PURPOSE OF THIS ORDER

This order describes the airspace structure, procedures, and relevant control-related policy for all controllers working an operational RDU ATCT/TRACON position on the VATSIM network.

1–1–2. AUDIENCE

This order applies to all vZDC controllers and any non-assigned (i.e., visiting) controller receiving training from the vZDC Training Department to work any facility or airspace delegated to vZDC.

1–1–3. WHERE TO FIND THIS ORDER

This order is available on the vZDC web site at https://www.vzdc.org/publications/downloads under the Publications tab.

1–1–4. WHAT THIS ORDER CANCELS

This order cancels the RDU ATCT/TRACON SOP Version D document dated as effective on July 5, 2024. This document is now the sole document outlining standard policy and procedure for RDU ATCT/TRACON.

1–1–5. EXPLANATION OF CHANGES

This change introduces the new SOP formatting across the ARTCC along with updated information, diagrams, and providing clarity in certain areas not covered in the previous version.

1–1–6. DENOTATION OF CHANGES

Changes are indicated via the use of the shading tool. The changed text is highlighted in grey to indicate a change. No indication is made where text was removed from the document. Grammatical revisions and other changes to improve readability without changes in policy will not be marked.

EXAMPLE –
Changed or added text is highlighted in grey.

Chapter 2. Operations

Section 1. Operational Positions

2–1–1. ALL POSITIONS AND FREQUENCIES

TBL 2-1-1
RDU ATCT/TRACON Positions & Frequencies

Identifier	Position	Frequency
Clearance	Clearance Delivery	120.100
Ground East	**Ground Control**	**121.900**
Ground West	Ground Control	121.700
Local East	**Local Control**	**127.450**
Local West	Local Control	119.300
Departure North	**Departure North**	**132.350**
Departure South	Departure South	125.300
Arrival East	**Approach East**	**124.950**
Arrival West	Approach West	127.675
Final East	**Finals East**	**124.800**
Final West	Finals West	135.150

NOTE –
Bold text is the primary frequency.

Section 2. Runway Configurations

2–2–1. NORTHEAST OPERATION

Runway 05R and 05L are the primary arrival and departure runways for all aircraft. Runway 14/32 is available upon request. At the time of the request, runway selection of runway 14/32 will be made based on weather and traffic conditions.

2–2–2. SOUTHWEST OPERATION

Runway 23R and 23L are the primary arrival and departure runways for all aircraft. Runway 14/32 is available upon request. At the time of the request, runway selection of runway 14/32 will be made based on weather and traffic conditions.

2–2–3. CHANGE IN RUNWAY CONFIGURATION

The CIC must determine the need for making any active runway changes. A routine runway change occurs when traffic and/or weather conditions are such that the change can be made with little or no degradation in service. In this instance, departures are allowed to depart from the runway originally assigned. Use the following procedures to complete a routine runway change:

1) Provide RDU TRACON with the last departure’s identification, its estimated time of departure, and the departure runway.

2) Once the last aircraft departures, ensure that no other aircraft departs RDU without a release from RDU TRACON.

3) Ensure that departures off the new runway have received the appropriate DP and departure control frequency, as needed.

4) RDU TRACON shall inform the CIC when the sector reconfiguration has been completed.

5) Ensure the ATIS has been updated and reflects the proper status.

Chapter 3. Clearance Delivery

Section 1. Duties

3–1–1. RESPONSABILITIES

Clearance Delivery must:

a. Formulate and issue IFR and VFR clearances to aircraft departing RDU. This does not include aircraft wishing to conduct pattern work.

b. Review proposed flight plan information received and verify for accuracy and amend routings and altitudes, as necessary, in accordance with appropriate LOA's.

3–1–2. IFR DEPARTURE INSTRUCTIONS

All IFR aircraft should be assigned a Standard Instrument Departure (SID) most consistent with their route of flight. Aircraft unable to fly any SID shall be assigned radar vectors to their initial fix. Assign initial altitudes as follows:

a. Jets – 6,000 feet

b. Turboprops – 3,000 feet

c. All other aircraft – 2,000 feet

If applicable, aircraft should be told to expect their filed cruise altitude ten minutes after departure.

3–1–3. TOWER DATA-LINK SERVICES (VTDLS)

RDU is equipped with vTDLS to issue Pre-Departure Clearances (PDCs) to IFR aircraft.

3–1–4. VFR DEPARTURE INSTRUCTIONS

VFR aircraft requesting flight following shall have the following in their VFR flight plan prior to departure:

a. Destination airport

b. Aircraft type

c. Requested VFR altitude

VFR aircraft remaining in the pattern require a squawk code assigned to them. VFR aircraft requesting flight following shall be told to maintain VFR at or below the appropriate altitude based on aircraft type as listed in 3-1-2.

NOTE –
VFR aircraft remaining in the pattern do not require an altitude restriction.

3–1–5. DEPARTURE FREQUENCY ASSINGMENT

Assign departure frequencies in accordance with an aircraft’s SID, departure gate, or direction of flight.

Section 2. Departure Gates

3–2–1. GENERAL

To standardize departure flows and ensure proper and expeditious routing of traffic, RDU TRACON uses departure exit gates for IFR Departures to destinations outside of RDU airspace. IFR aircraft leaving RDU must leave RDU TRACON airspace bound for one of these gates, unless coordinated otherwise.

3–2–2. DEPARTURE GATES

TBL 3-2-2
RDU Departure Gates

Gate	DTA	Departure Sector
AIMHI	LVL	North
CATAR	LIB	North
EAGER	FAY	South
EPOCH	LIB	North
EVIGY	FAY	South
FITON	FAY	South
JAYRR	LIB	North
LIB	LIB	North
OXFRD	LVL	North
STRMY	TYI	South

Chapter 4. Ground Control

Section 1. Duties

4–1–1. RESPONSABILITIES

Ground Control must:

a. Sequence aircraft that have the same first fix or direction of departure with other aircraft.

b. Keep runway exits clear for landing aircraft.

4–1–2. RUNWAY CROSSINGS

Blanket crossings are not approved at RDU. Ground Control must verbally coordinate with Local Control for any aircraft that require a runway crossing. Aircraft requiring to cross runway 05R/23L at taxiway C should be transferred to Local Control East for crossing.

4–1–3. RUNWAY ASSIGNMENT

Aircraft shall be assigned a runway closest to their parking location unless otherwise coordinated.

NOTE –
Assigning an aircraft a non-standard runway requires coordination with local control via verbal or nonverbal methods.

Section 2. Taxiway Utilization

4–2–1. GENERAL

a. Ground Control East is authorized to flow traffic westbound on taxiways C and J to hold short of taxiway F

b. The Transfer of Control Point (TCP) for taxiways C and D is taxiway G.

c. The TCP for taxiway E is upon the aircraft turning onto the taxiway.

d. The TCP for taxiway J is upon passing taxiway J4.

e. Taxiways C, C1, and Z are controlled by Local Control East.

4–2–2. GROUND CONTROL EAST

Ground Control East is responsible for the movement areas as depicted in Appendix A.

4–2–3. GROUND CONTROL WEST

Ground Control West is responsible for the movement areas as depicted in Appendix A.

4–2–4. PUSHBACK PROCEDURES

a. Ground will approve pushbacks onto taxiway A from Terminal 1. Tail direction shall be specified.

b. During periods of high volume, such as events, Ground Control may approve pushbacks for aircraft that would pushback into a non-movement area. If Traffic Management Initiatives (TMI) are in effect, Ground Control shall instruct aircraft affected by the TMI to advise ready for pushback.

Chapter 5. Local Control

Section 1. Airspace Utilization

5–1–1. AIRSPACE

Local Control assumes responsibility for the airspace within 5 NM of RDU at and below 2,000 feet.

5–1–2. LOCAL CONTROL EAST

Local East is responsible for the airspace depicted in Appendix B and runways 05R/23L and 14/32. Also responsible for taxiways C, C1, and Z.

Runway 14/32 Procedures:

a. Must advise Local Control West of runway 14/32 arrivals prior to a 5 NM final

b. Runway 32 departures shall be coordinated with Local Control West and receive release from the appropriate departure sector.

c. Runway 14 departures shall receive a release from the appropriate departure sector.

5–1–3. LOCAL CONTROL WEST

Local West is responsible for the airspace depicted in Appendix B and runway 05L/23R.

Section 2. Departure Procedures

5–2–1. DEPARTURE INSTRUCTIONS

All departures shall be assigned a heading in their takeoff clearance in accordance with table 5-2-1 “Departure Headings.”

TBL 5-2-1
Departure Headings

West Operation (23L/R)		
Aircraft Type	Departure Sector	
	NORTH	SOUTH
Turbojets	RH	210
Turboprops	RH, 270	210, 180
Props	RH, 270, 290, 310	210, 180, 160

East Operation (05L/R)		
Aircraft Type	Departure Sector	
	NORTH	SOUTH
Turbojets	035	RH
Turboprops	035, 360	RH, 070, 090
Props	035, 360, 320	RH, 070, 090, 110

s

5–2–2. LINE UP AND WAIT (LUAW)

LUAW procedures are authorized at RDU. Such operations are generally viewed as necessary to maintain airport efficiency. Use LUAW when it is expected the aircraft will depart after conflicting traffic is clear of the runway/ intersection. Utilize good operating practices and memory aids as needed when using LUAW procedures.

a. Do not clear an aircraft to land, touch-and-go, option, or low approach on the same runway with an aircraft that has been cleared to line up and wait until the aircraft starts takeoff roll.

5–2–3. DEPARTURE RELEASES

RDU has blanket IFR releases unless one of the following conditions is met:

a. There was a previous missed approach/go around and the automatic departure releases have not been given back by RDU TRACON.

b. RDU TRACON cancels automatic releases and local control must call for release.

c. An aircraft is departing a non-standard departure runway.

d. An aircraft is departing runway 14/32

When one or more of the above conditions are met, Local Control must call RDU TRACON for release stating the following information:

a. ACID

b. Runway and departure heading

c. Initial routing

Section 3. Arrival Procedures

5–3–1. MISSED APPROACH/GO AROUND PROCEDURES

Missed approaches or go around instructions are climb and maintain 4,000 feet (jet) or 2,000 feet (other) and a standard departure heading in accordance with table 5-2-1 “Departure Headings.” If using a non-standard heading, maintain 2,000 feet regardless of aircraft type. Local control shall immediately coordinate with RDU TRACON about the aircraft. Automatic departure releases are suspended following a missed approach/go around until RDU TRACON releases them to Local Control.

a. After a missed approach/go around automatic releases are suspended until released by RDU TRACON.

b. Tower may re-sequence props providing the Tower ensures separation between the go around and all other pertinent traffic and does not affect the sequence of other IFR arrivals sequenced by the TRACON.

5–3–2. RUNWAY EXITING PROCEDURES

Once aircraft are clear of the runway, they shall taxi across all other active runways prior to being handed off to GC. If the aircraft does not need to cross an active runway, they shall be handed off to GC as soon as they are clear of the runway.

Chapter 6. TRACON

Section 1. Airspace

6–1–1. RDU TRACON AIRSPACE

RDU TRACON is delegated the airspace as seen in Appendix C.

Section 2. Departures

6–2–1. PROCEDURES

Ensure turbojet aircraft do not begin a turn until:

a. Runway 23L/R runway heading – 2 DME from RDU or leaving 3,000 feet

b. Runway 23L/R heading 210 – 7 DME from RDU or leaving 3,000 feet.

c. Runway 05R/L runway heading – leaving 3,000 feet.

Turbojet departures should be climbed to 12,000 feet or lower filed cruise altitude. Prop/turboprop departures should be climbed to 11,000 feet or lower filed cruise altitude. If a departure is routed through an ATA, it should be climbed to 7,000 feet and handed off to the next appropriate facility.

TBL 6-2-1
IFR Departures

A/C Type	Route	To	Altitude	Notes
All	BEXGO#	ZDC BKT (20)	Jet – 120 Prop – 110	
	HOOKZ#	ZDC DIW (09)		
	HURIC#			
	LWOOD#			
	OXFRD#	ZDC BKT (20)		
	PACK#	ZDC DIW (09)		
	ROZBO#			
	SHPRD#			
Prop	RDU#		110	

6–2–2. DEPARTURE NORTH/SOUTH

Departure North and South must:

a. Ensure turbojet aircraft do not begin a turn until:

(1) Runway 23L/R runway heading – 2 DME from RDU or leaving 3,000 feet

(2) Runway 23L/R heading 210 – 7 DME from RDU or leaving 3,000 feet.

(3) Runway 05R/L runway heading – leaving 3,000 feet.

6–2–3. PREARRANGED COORDINATION PROCEDURES

Prearranged Coordination Procedures (P-ACP) allows departure to penetrate or transit arrival's airspace without coordination for each aircraft.

a. General:

(1) P-ACP shall only be utilized by departure to transition RDU airport departures. Departure shall not transition aircraft through arrival's airspace in level flight without coordination.

(2) Prior to using P-ACP, departure must display full data blocks of all arrival and final sectors via the STARS quick-look function.

(3) The departure controller must be responsible for maintaining approved radar separation between aircraft under their control and all traffic in the P-ACP airspace.

NOTE –
The Mode C readout of an aircraft under another controller's jurisdiction must not be used for separation purposes without individual coordination.

b. Departure North may only apply P-ACP within the depicted boundaries A and B of Arrival West in FIG 6-2-1 and 6-2-2.

c. Departure South may only apply P-ACP within the depicted boundaries C and D of Arrival East in FIG 6-2-1 and 6-2-2.

FIG 6-2-1
P-ACP Airspace – NE

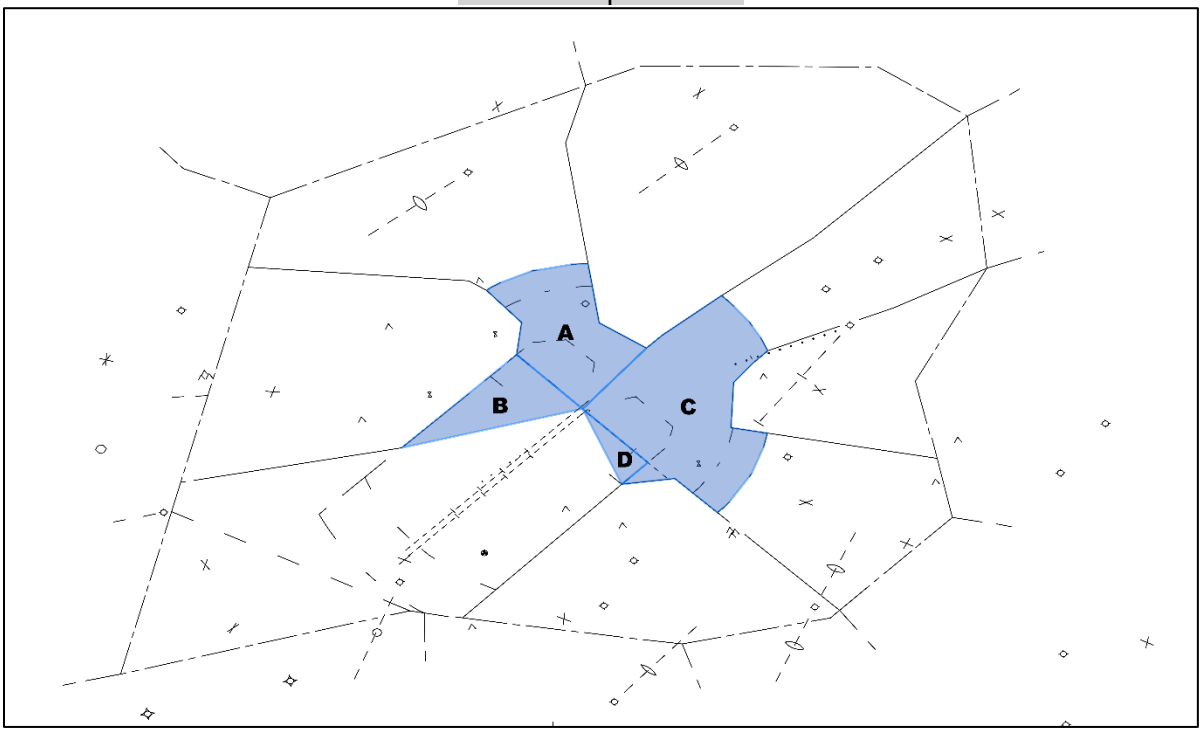
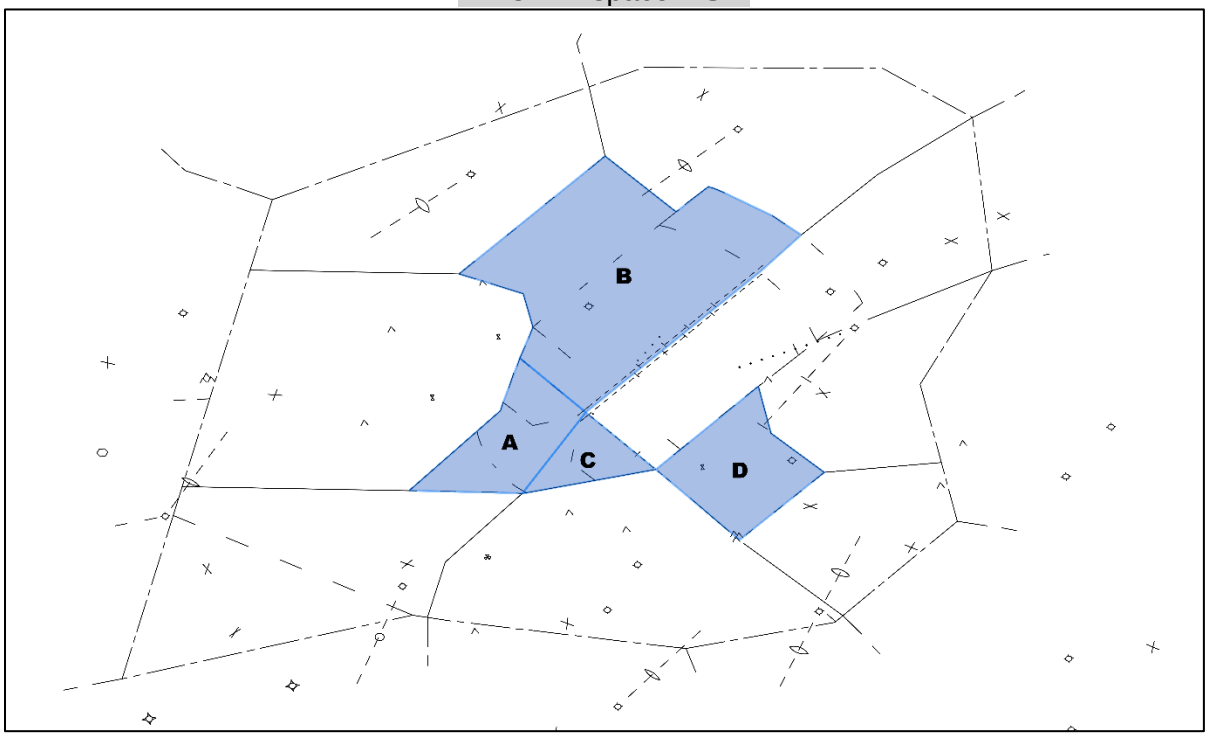


FIG 6-2-2
P-ACP Airspace – SW



Section 3. Arrivals

6–3–1. PROCEDURES

If an aircraft is on a “descend via” arrival that is issued by ZDC, the following must be confirmed on initial contact with RDU TRACON:

a. Current altitude leaving

b. “Descending via” the name of the procedure and the runway/landing direction.

On initial contact with RDU TRACON, it is strongly recommended that all IFR arrivals be given the following. If the arrival does not check in with the current ATIS, it is required.

a. Current ATIS letter

b. Local altimeter

c. Approach to expect

When vectoring to final, aircraft on opposing base legs must be assigned altitudes that ensure vertical separation exists unless other approved separation has already been applied. This ensures approved separation in the event of an overshot or late turn-on to final.

Simultaneous operations to runways 05R/23L or 05L/23R and runway 32 as follows:

a. Visual approaches may be conducted simultaneously with visual or instrument approaches to another runway provided standard separation is maintained until the aircraft conducting the visual approach have been issued, and the pilot has acknowledged receipt of the visual approach clearance.

b. Simultaneous instrument approaches may be conducted provided standard separation is maintained through the duration of the approaches or until visual separation is provided by the aircraft or the tower.

TBL 6-3-1
IFR Arrivals

A/C Type	Route	From	Altitude	Notes
Jet	ALDAN#	ZDC GVE (32)	D/V	
	BLOGS#	ZDC DIW (09)	D/V	
	DMSTR#		D/V	
	TAQLE#	ZDC BKT (20)	D/V	
All	BRADE#	ZDC DIW (09)	110	AT BRADE
	BUZZY#		110	AT BUZZY
Turboprop	Arrival fix direct	Various	AOB 080	
Prop	Direct		AOB 070	

6–3–2. ARRIVAL EAST/WEST

Arrival East and West must:

a. Manage arrival routes, speeds, and altitudes to establish an orderly and efficient traffic flow.

b. Ensure arriving turbojet aircraft do not descend below 6,000 feet prior to entering final airspace. When using a base leg entry to final airspace, descent below 6,000 feet may be permitted provided:

(1) Approval is granted from the appropriate controllers, and

(2) Descent below 6,000 feet is not commended prior to 20 flying miles from the airport.

c. Unless otherwise coordinated, assign 6,000 feet to turbojet aircraft handed off to final.

d. Utilize scratchpad entries to reflect assigned landing runway and type approach.

6–3–3. FINAL EAST/WEST

Final East and West must:

a. Ensure a safe and orderly sequence of traffic to the airport.

b. Ensure vertical separation between opposite base leg traffic until another form of separation is established.

c. Transfer communications of arrivals to the Tower at least 5 NM from the airport.

d. Authorize simultaneous arrival operations to parallel and/or converging runways as follows:

(1) Visual approaches may be conducted simultaneously with visual or instrument approaches to another runway IAW FAA Order JO7110.65 chapter 7.

(2) Simultaneous instrument approaches may be conducted provided standard separation is maintained through the duration of the approaches.

c. Unless visual separation is applied or coordination is affected, Final shall conduct parallel ILS approaches as follows:

(1) RWY 23L - Ensure aircraft intercept the localizer at 3,200 feet inside 10 DME and 4,000 feet outside 10 DME.

(2) RWY 5R - Ensure aircraft intercept the localizer at 3,100 feet inside 10 DME and 4,000 feet outside 10 DME.

(3) RWY 23R - Ensure aircraft intercept the localizer at 2,200 feet inside 10 DME and 3,000 feet outside 10 DME.

(4) RWY 5L - Ensure aircraft intercept the localizer at 2,100 feet inside 10 DME and 3,000 feet outside 10 DME.

d. Aircraft with an operational need to cross the RDU airport below 2,500 feet must be changed to the appropriate local control frequency at least 5 NM from the airport.

e. Ensure arriving turbo-jet aircraft do not descend below 3,000 feet prior to 10 DME for noise abatement.

f. Aircraft shall not be vectored for visual approaches when the ceiling is less than 2100 feet.

g. Final East shall provide Final West an arrival sequence when simultaneous visual or instrument approaches are in progress.

(1) Final West shall initiate a radar point out to Final East for the aircraft requiring a slot. Final West then shall verbally ask Final East for a slot referencing the pointed-out aircraft.

(2) Final East will issue traffic for Final West to follow by initiating a radar point out on the aircraft to Final West. If no traffic is required to be issued, Final East should allow the Final West aircraft to go first in the sequence.

PHRASEOLOGY –
FINAL WEST: "REQUEST ONE SLOT [ACID]"

FINAL EAST (first slot): "FIRST SLOT APPROVED."

OR

FINAL EAST (behind traffic): "ONE SLOT APPRROVED BEHIND [ACID]"

NOTE –

1) *If a radar point out is not utilized, a cardinal direction and specific mileage must be given in lieu of the point out.*
2) *More than one slot may be coordinated at a time, just ensure all aircraft are pointed out or are issued their respective positions during the coordination.*

6–3–4. SATELLITE ARRIVAL OPERATIONS

ZDC shall clear RDU satellite arrivals via:

a. Arrival fix direct destination – AOA 8,000 feet.

b. Direct destination – AOB 7,000 feet.

6–3–5. OVERFLIGHT OPERATIONS

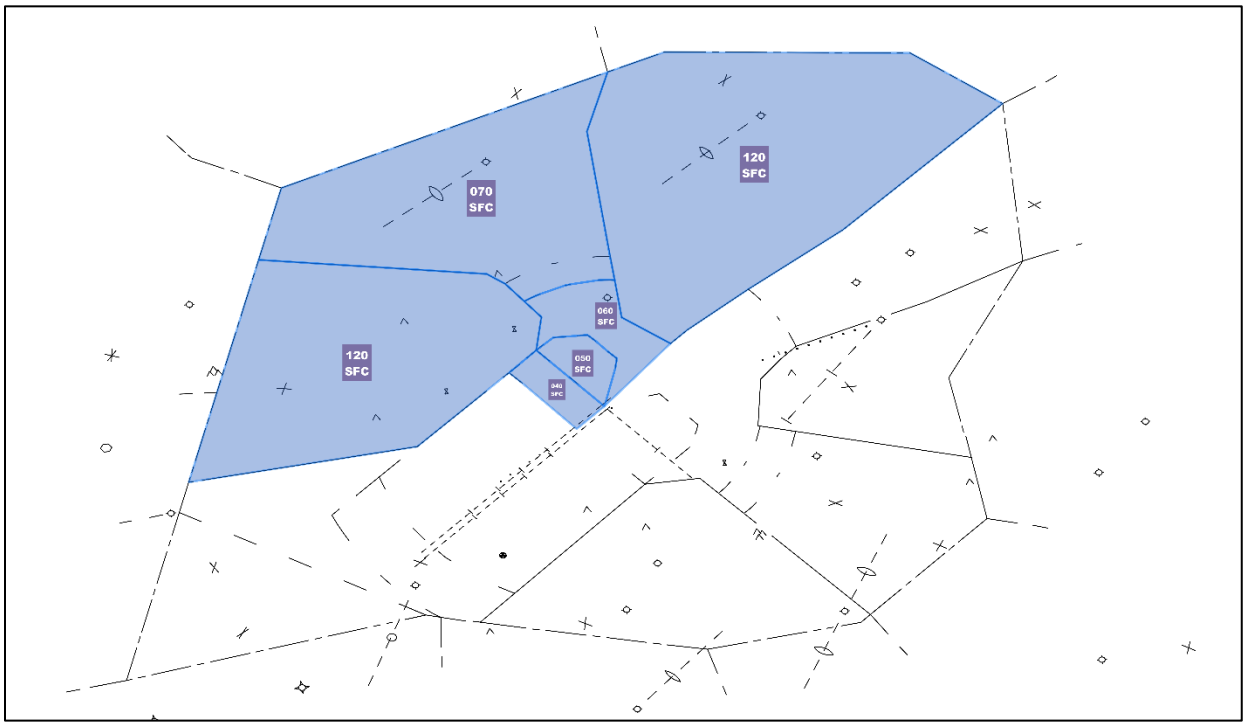
RDU TRACON shall comply with the following regarding IFR overflights:

a. RWI, W03: Direct destination – 5,000 feet.

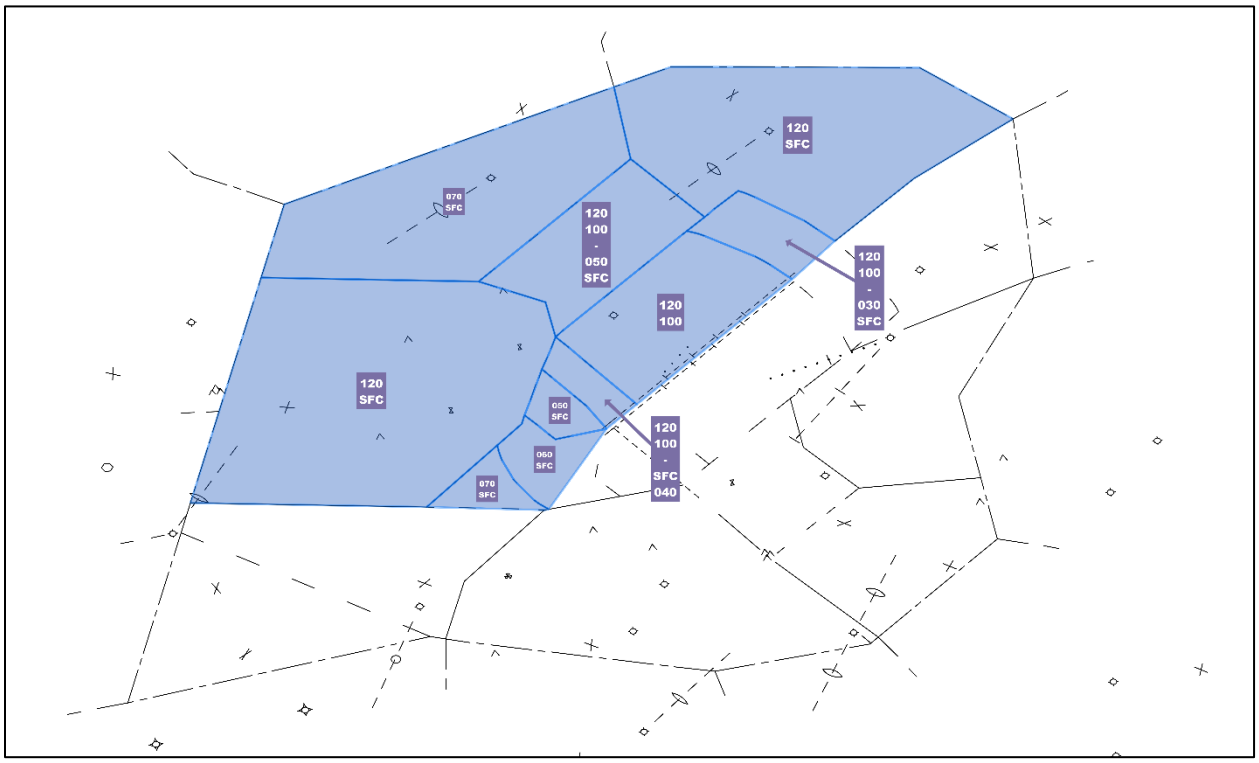
b. PVG: Direct destination – AOB 9,000 feet.

Section 4. Positions

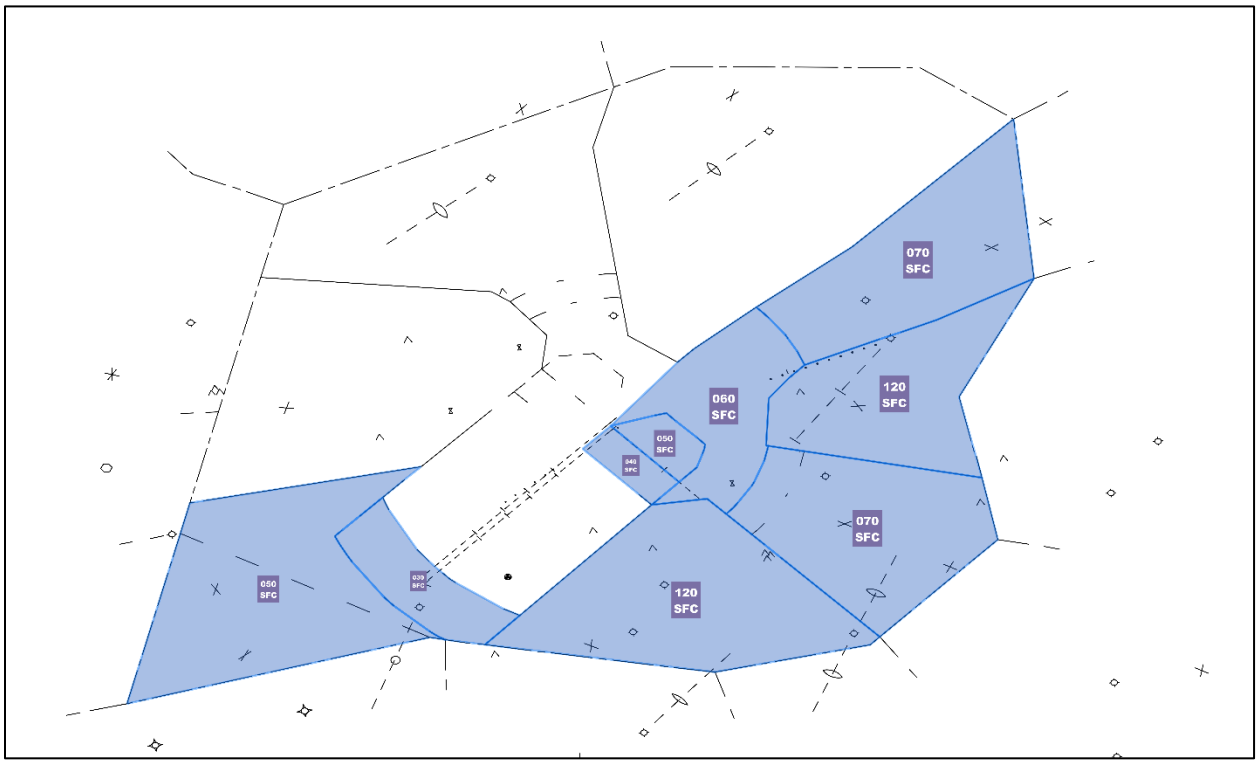
6–4–1. DEPARTURE NORTH – NORTHEAST OPERATIONS



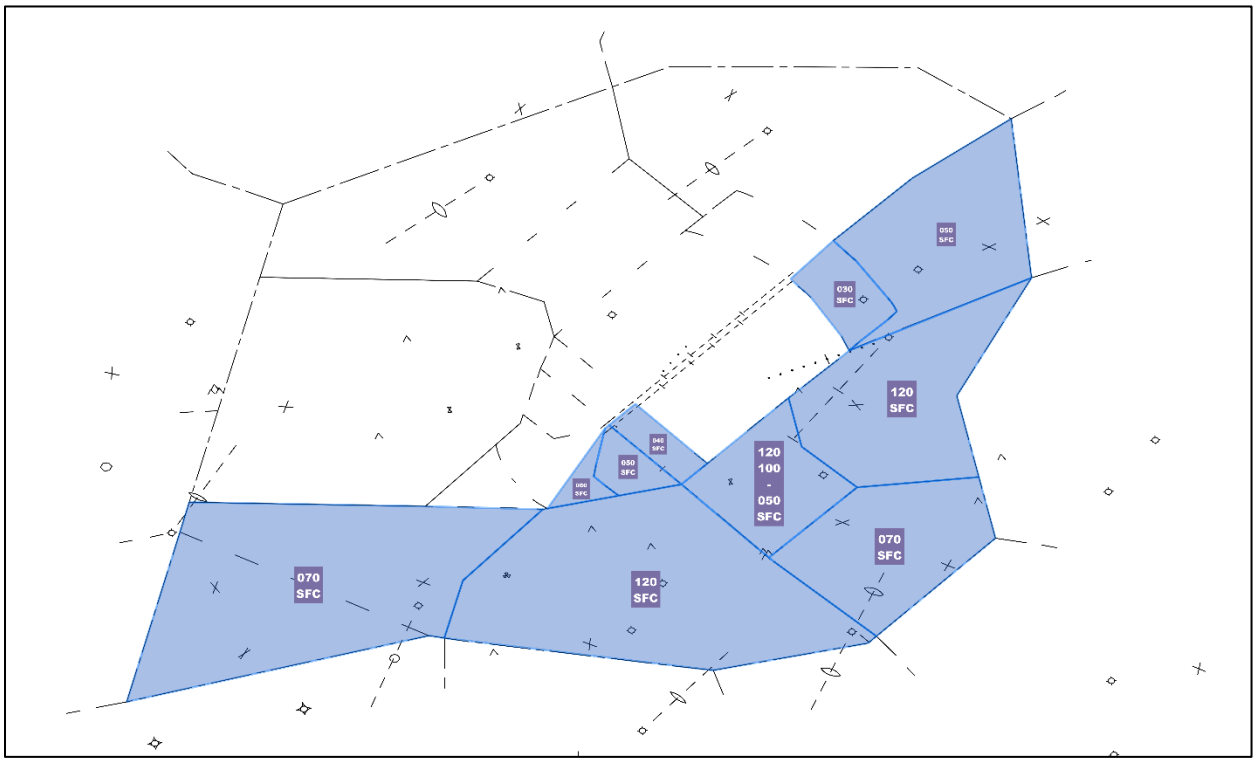
6–4–2. DEPARTURE NORTH – SOUTHWEST OPERATIONS



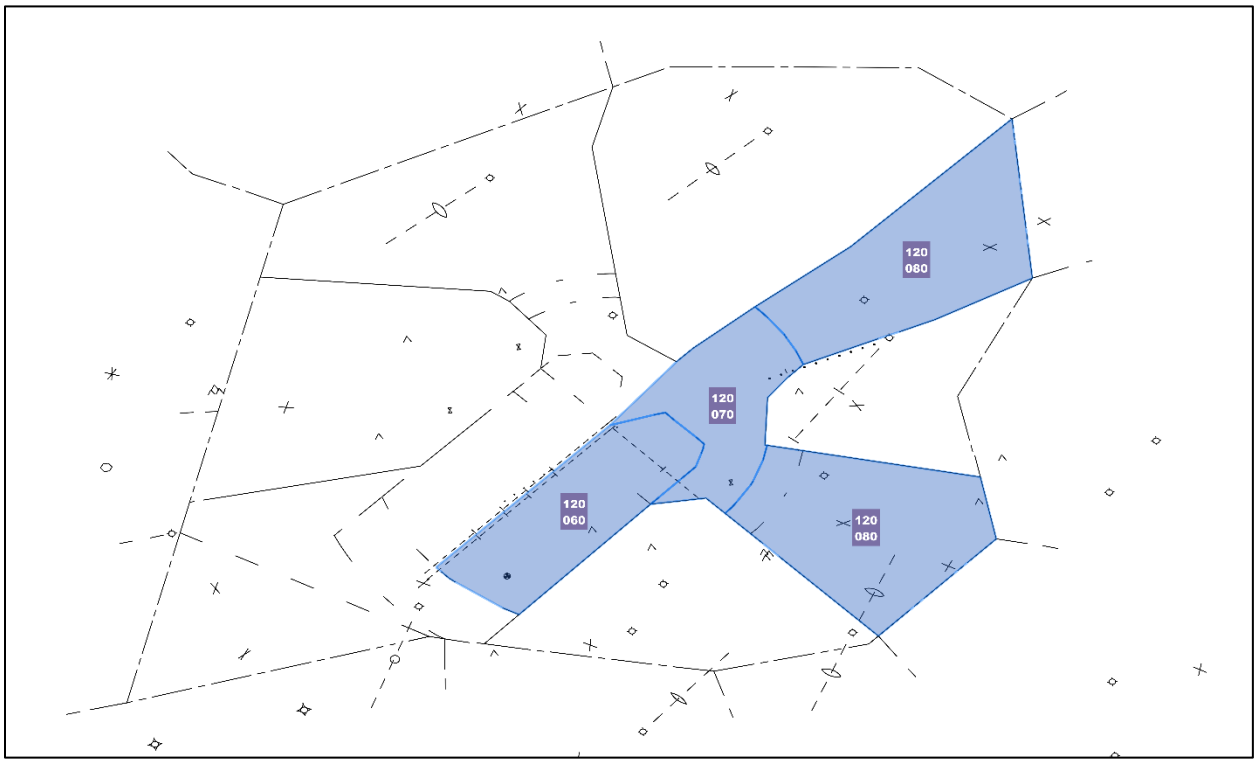
6–4–3. DEPARTURE SOUTH – NORTHEAST OPERATIONS



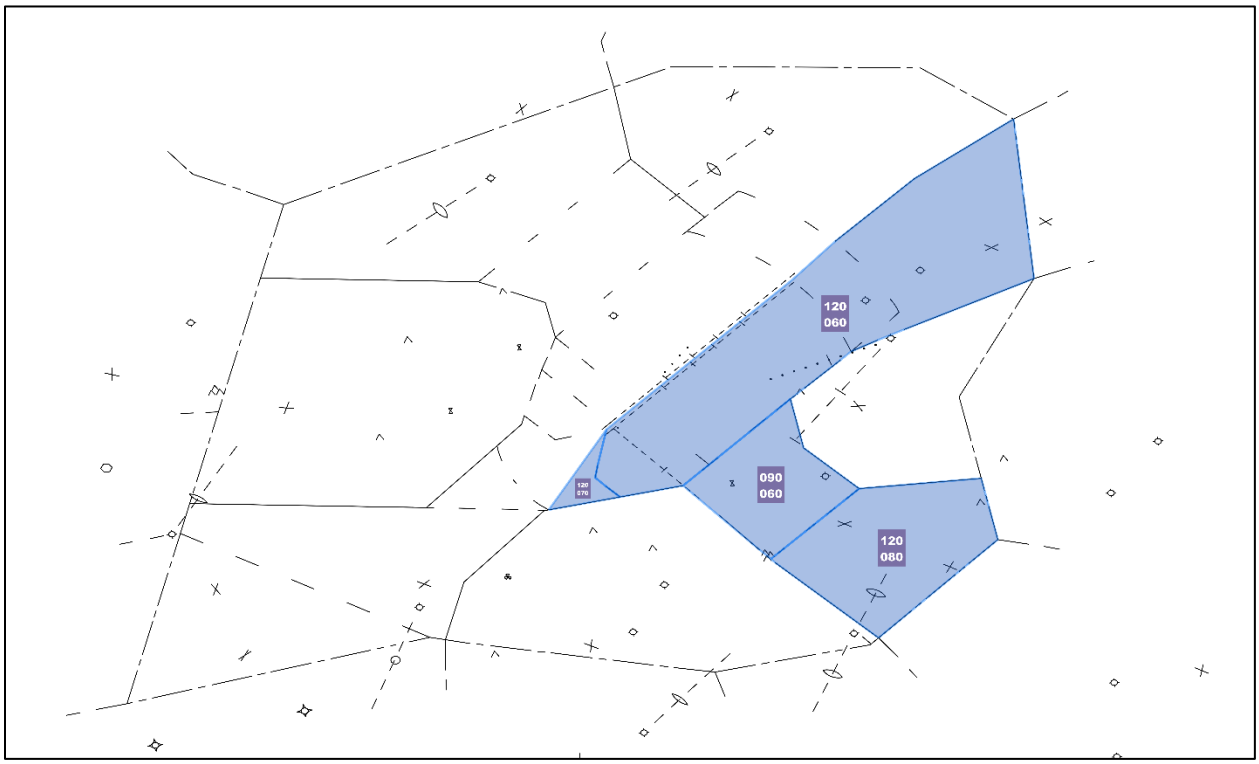
6–4–4. DEPARTURE SOUTH – SOUTHWEST OPERATIONS



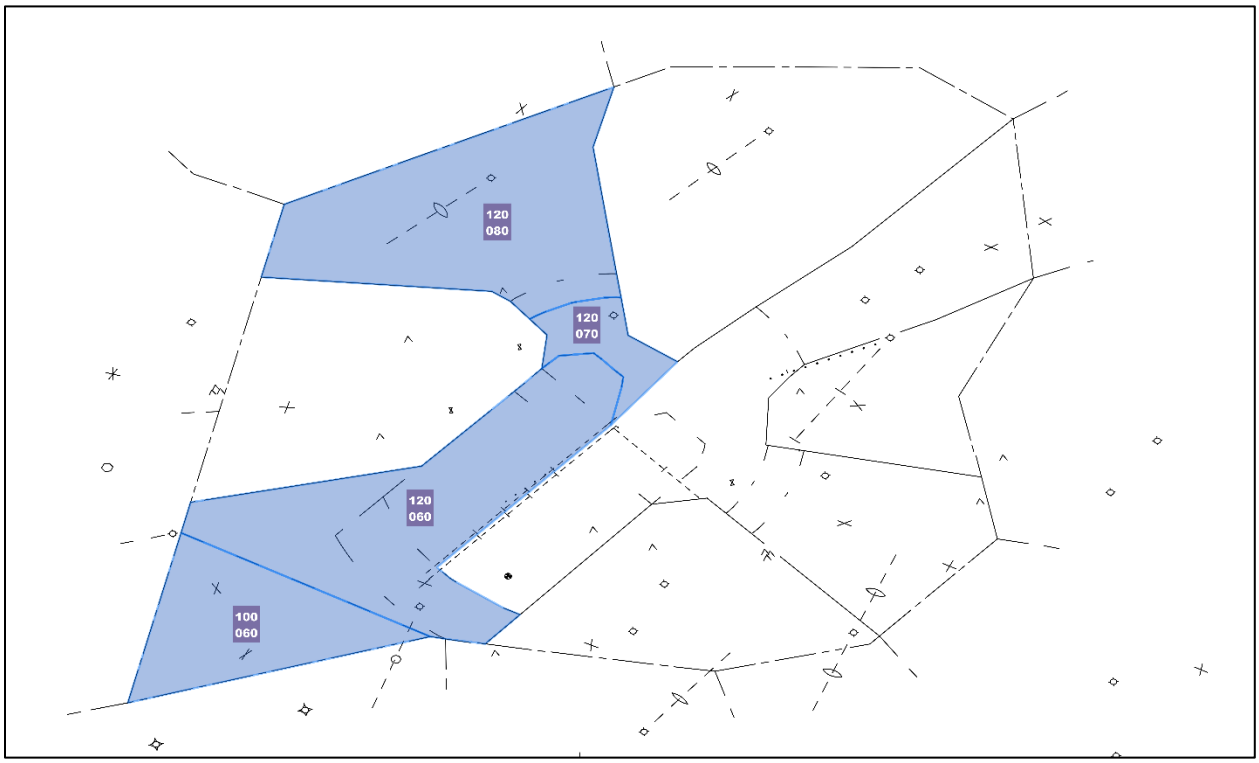
6–4–5. ARRIVAL EAST – NORTHEAST OPERATIONS



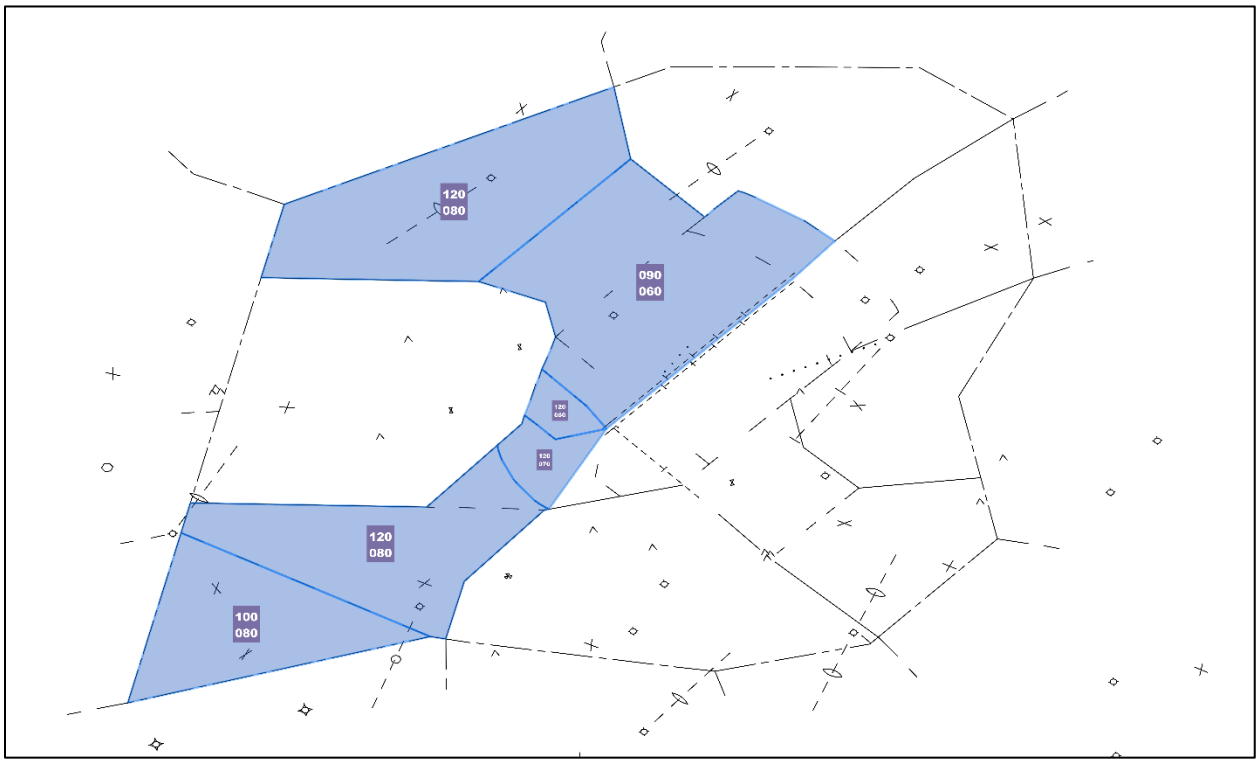
6–4–6. ARRIVAL EAST – SOUTHWEST OPERATIONS



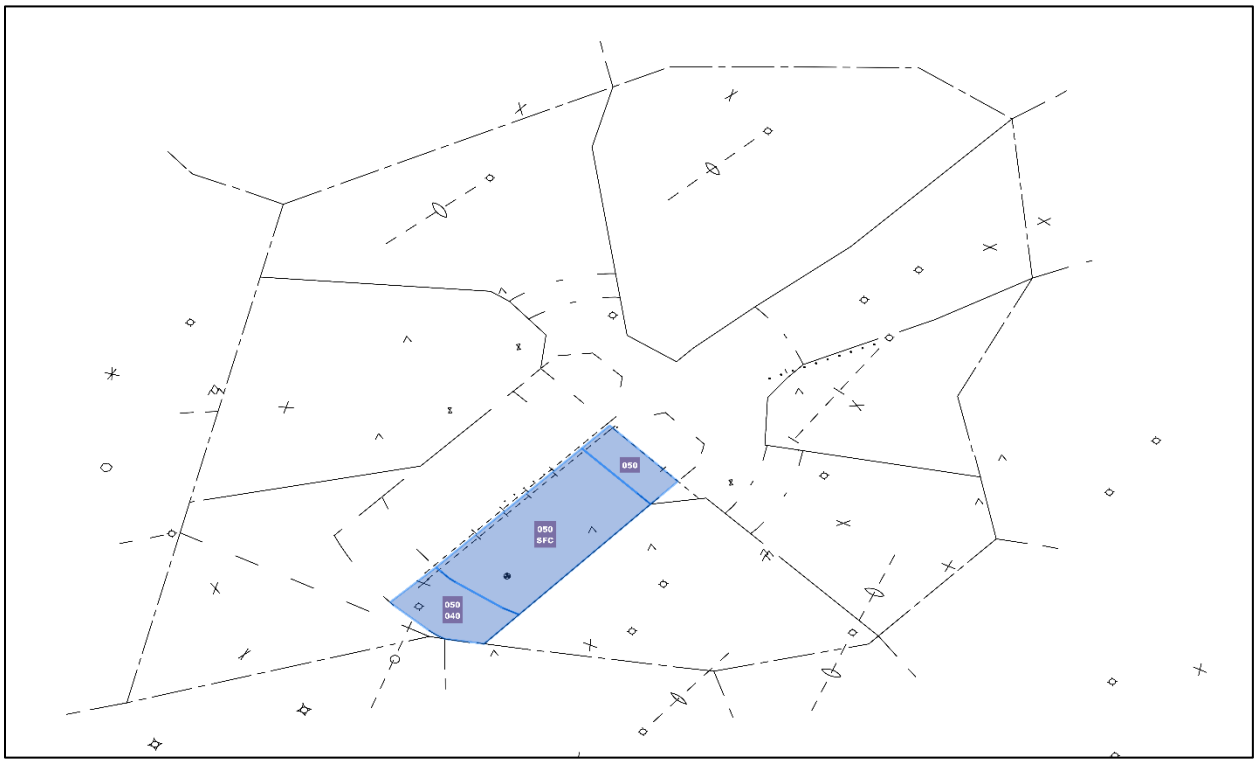
6–4–7. ARRIVAL WEST – NORTHEAST OPERATIONS



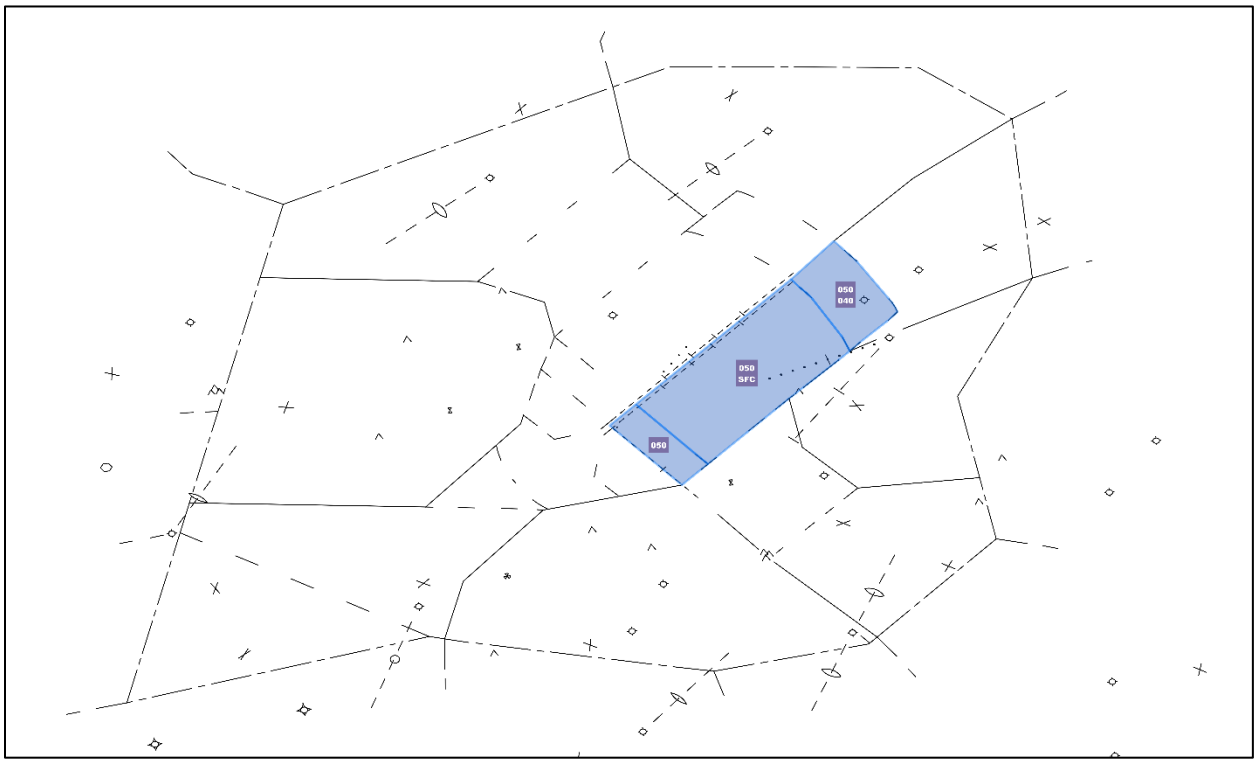
6–4–8. ARRIVAL WEST – SOUTHWEST OPERATIONS



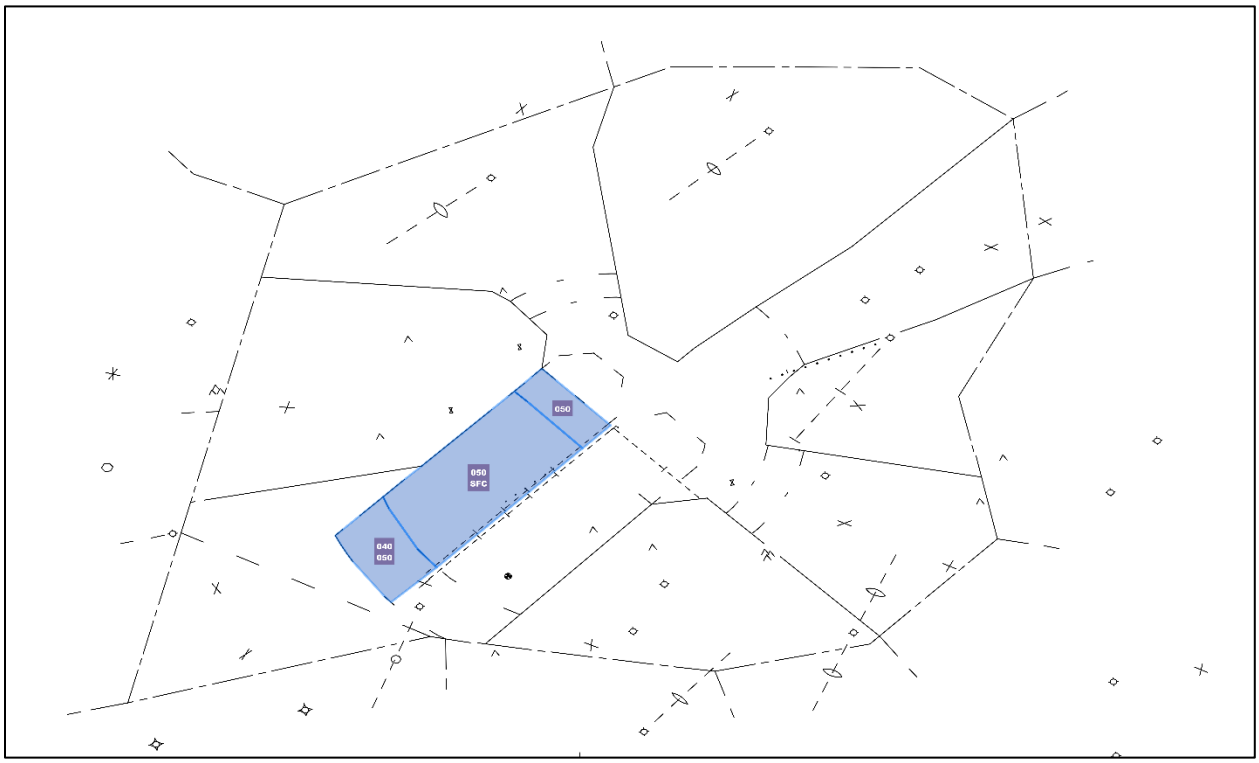
6–4–9. FINAL EAST – NORTHEAST OPERATIONS



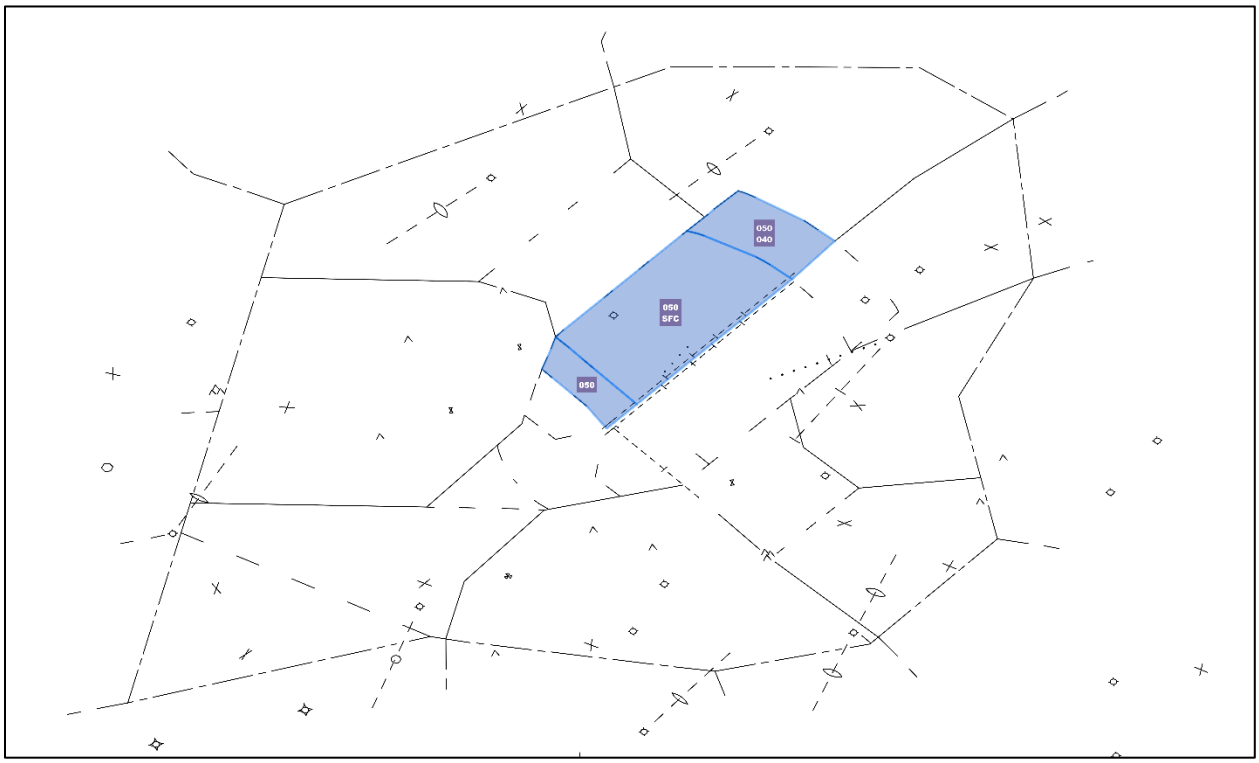
6–4–10. FINAL EAST – SOUTHWEST OPERATIONS



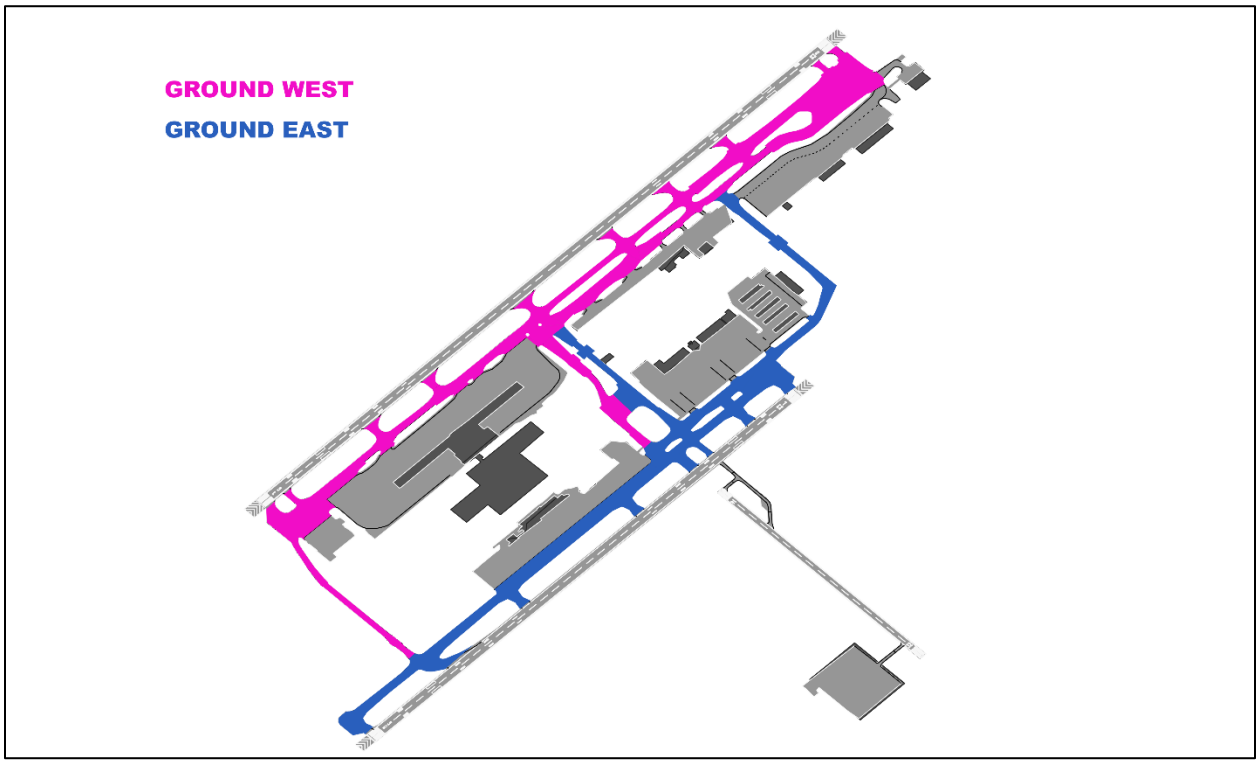
6–4–11. FINAL WEST – NORTHEAST OPERATIONS



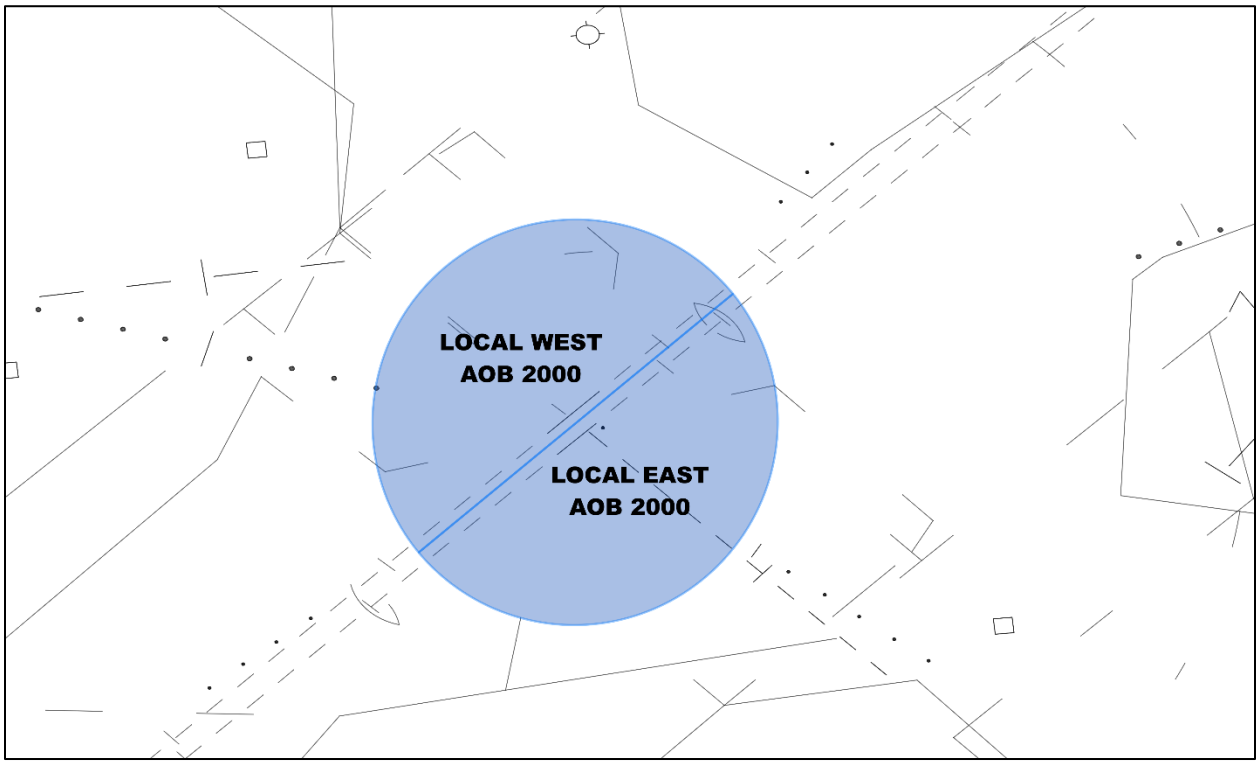
6–4–12. FINAL WEST – SOUTHWEST OPERATIONS



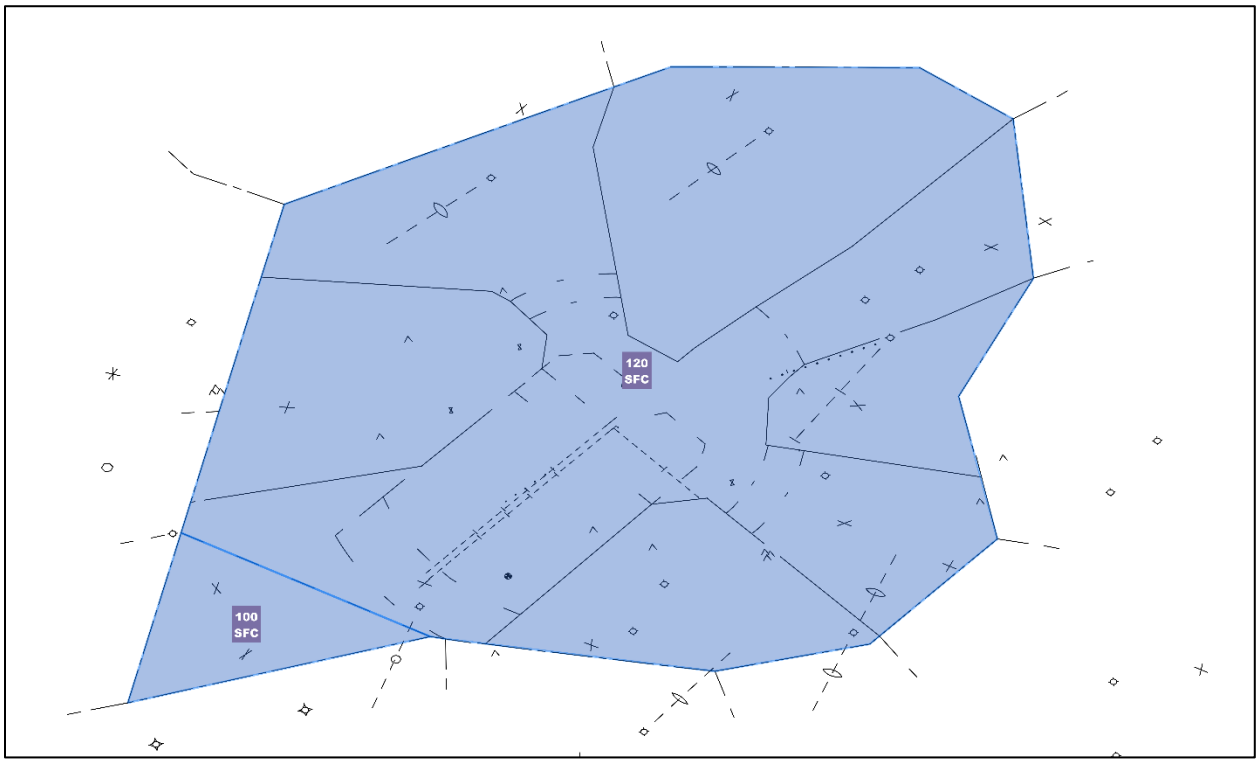
APPENDIX A. GROUND CONTROL SPLIT



APPENDIX B. LOCAL CONTROL SPLIT



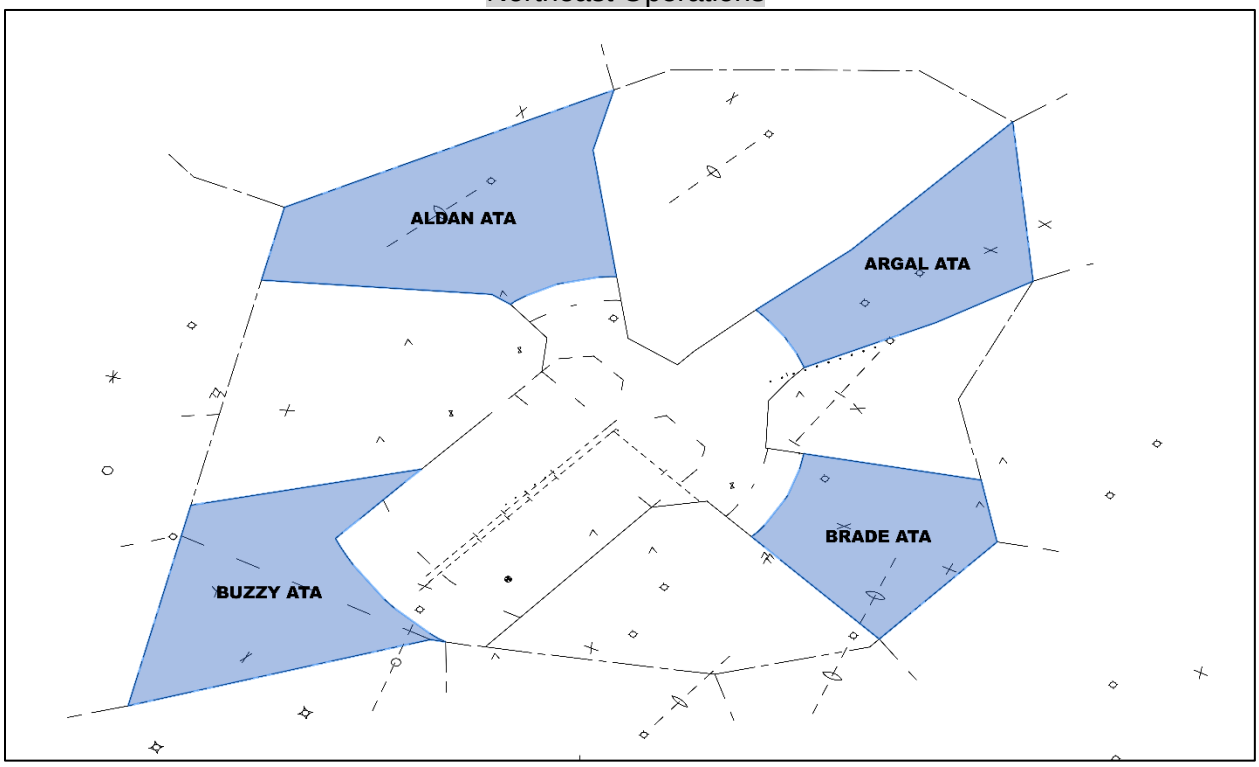
APPENDIX C. AIRSPACE DELEGATION



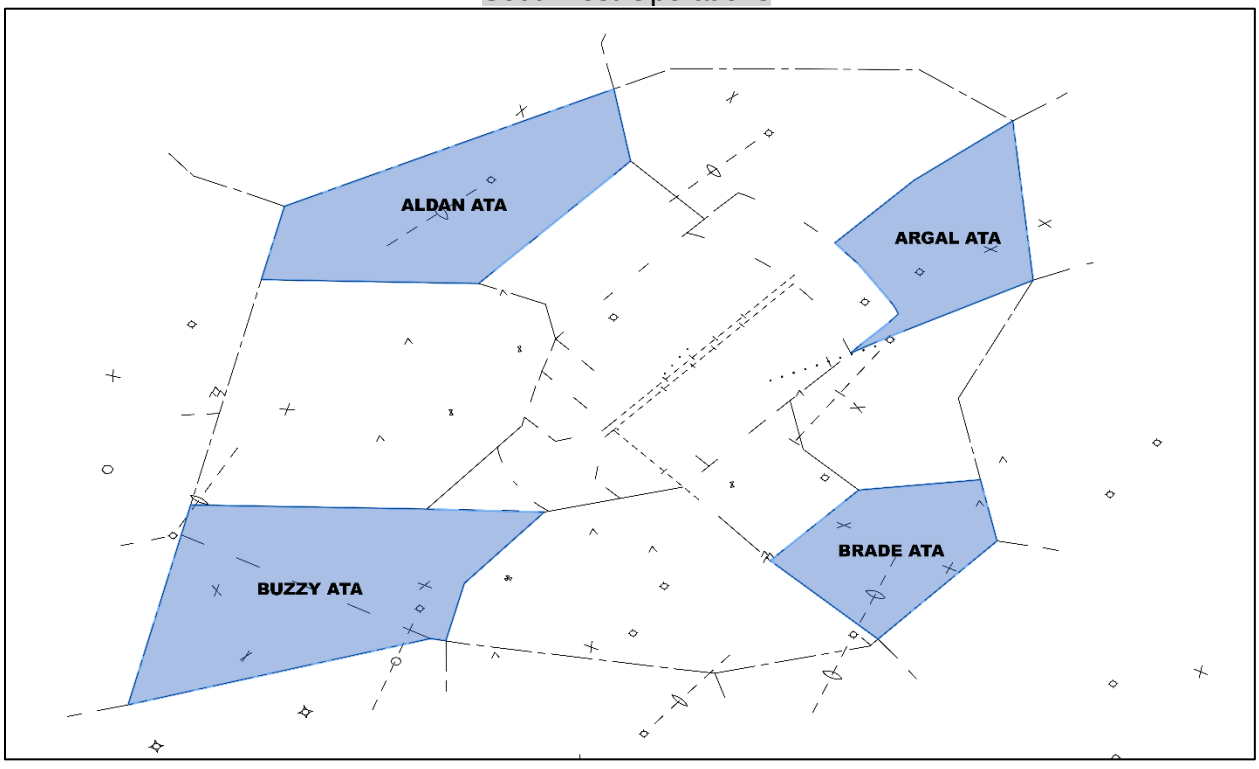
APPENDIX D. SURROUNDING AIRSPACE

APPENDIX E. ARRIVAL TRANSITION AREA (ATA)

Northeast Operations

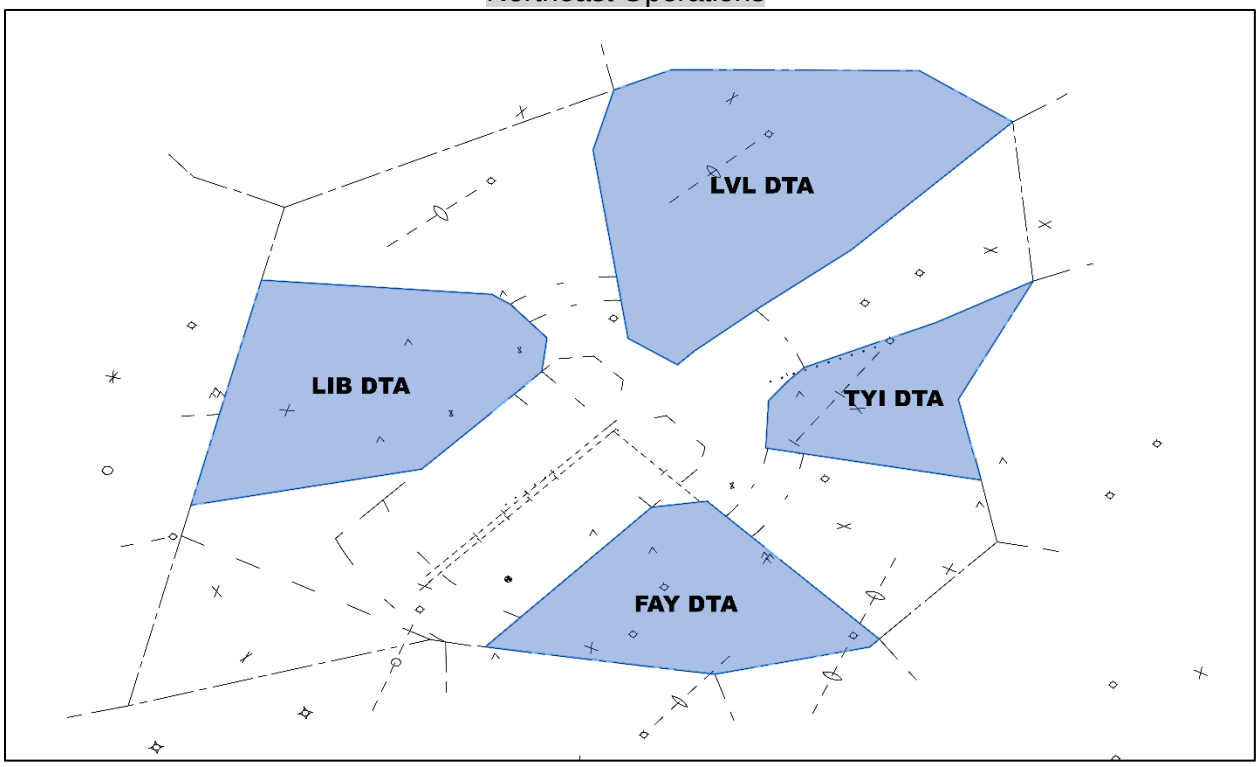


Southwest Operations

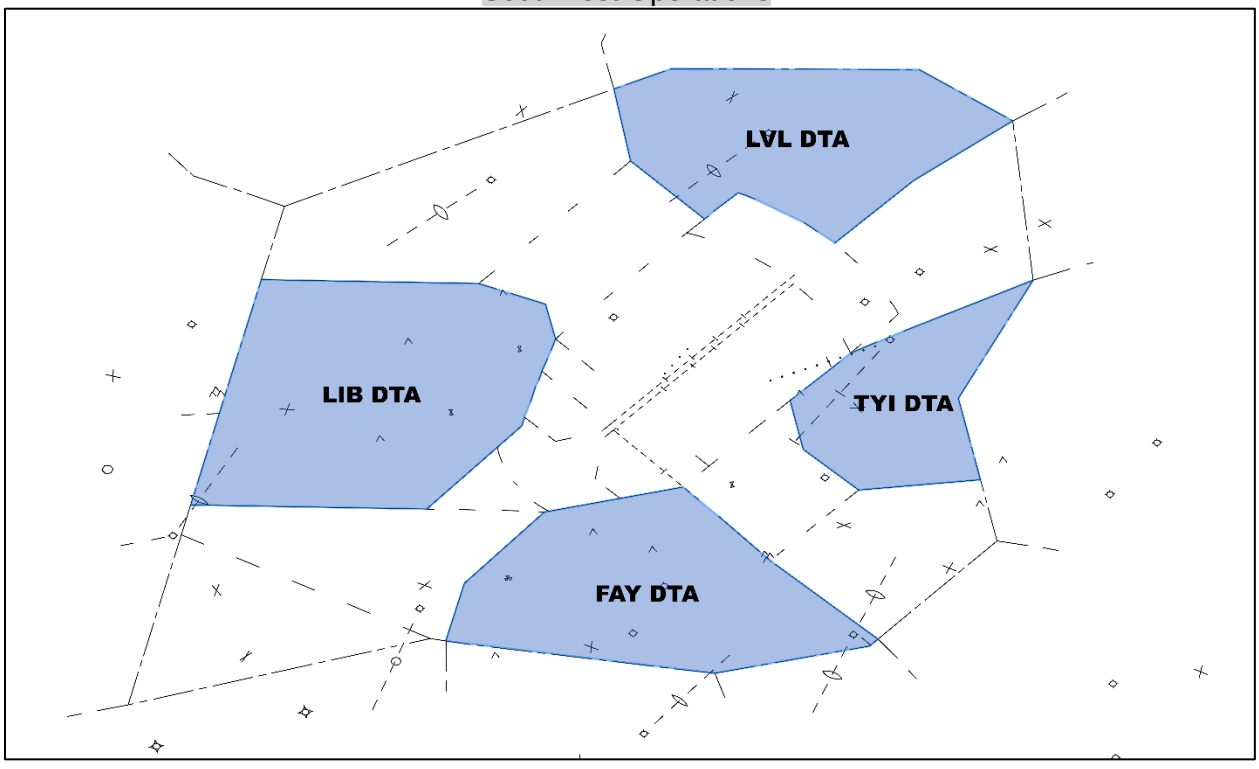


APPENDIX F. DEPARTURE TRANSITION AREA (DTA)

Northeast Operations



Southwest Operations



APPENDIX G. ZDC SECTORS