ZDCARTCC
WASHINGTON DC

STANDARD OPERATING PROCEDURES

RALEIGH ATCT/TRACON

Table of Contents

Index

January 21, 2026
vZDC-RDU-P-01F

VIRTUAL AIR TRAFFIC SIMULATION NETWORK
VATUSA DIVISION – WASHINGTON ARTCC

ORDER
vZDC-RDU-P-01F

SUBJ: vZDC-RDU-P-01F, effective January 21, 2026

This order provides direction and guidance for the day-to-day operations of the Raleigh Air Traffic Control Tower and TRACON (RDU ATCT/TRACON) on the Virtual Air Traffic Simulation Network (VATSIM) and prescribes air traffic control procedures and phraseology. Controllers are required to be familiar with the provisions of these procedures.

This document is only to be used in a simulated environment. This document shall not be referenced or utilized in live operations in the National Airspace System (NAS). The Virtual Washington ARTCC (vZDC), VATUSA, and VATSIM do not take any responsibility for uses of this order outside of the simulation environment.

Justin R. McElvaney
Air Traffic Manager
Virtual Washington ARTCC

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, dated February 12, 2025.

1–1–5. EXPLANATION OF CHANGES

This order has been revised to match the current vZDC Publications Standards. It incorporates hyperlinks to aid in navigation and quick reference of procedure and information. East Final Radar is now designated 1F and West Final Radar is now designated 1G. A consolidation flow diagram is included for better understanding of TRACON consolidation. Functional STARS standards for automated point outs, scratchpads, and STARS altitude entries is added. Guidance for use of Surface Awareness Initiative Display (SAID) added. Requirement for use of IDS is added, to include during event periods for TMI management. Pushback guidance for Terminal 2 traffic provided permitting controllers to determine best course of action based on current traffic. Separation responsibility of local control clarified. Tower assumed radar identification procedures included aligning with vZDC adopted standard. TRACON section divided into a “combined” chapter and a “sector information” chapter to provide consolidated general information and a sector-by-sector section for detailed sector information. Figures from appendices have been incorporated into their respective sections. An index has been added for additional assistance in identifying information.

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.

1–1–7. HOW TO USE THIS DOCUMENT

a. This document is organized by chapters. The first two chapters are general information, while subsequent chapters define procedures for each position in the cab and TRACON.

b. The use of hyperlinks throughout this publication is configured to provide quick access to often needed pieces of information. In addition to standard document reference hyperlinks, the use of quick link “buttons” is used throughout. Boxed and/or shaded content indicates a shortcut may be linked.

c. The use of ►is used to identify hyperlinked text. The text that precedes the ►is linked for ease of access.

d. The grid on page one of this document (also accessible by clicking the “RDU” box at the top left of the SOP document) is an abbreviated table of contents with hyperlinked content for quick access to commonly referenced materials.

EXAMPLE –

RDU

Section 2. Terms of Reference

1–2–1. WORD AND TERM MEANINGS

a. Arrivals. Refers specifically to arriving aircraft on an IFR flight plan.

b. Delegated Airspace. The airspace that is assigned to a specific sector or position within an individual facility.

c. Departures. Refers specifically to departing aircraft on an IFR flight plan.

d. VFR Arrival. Referring to an aircraft arriving to the airport under VFR.

e. VFR Departure. Refers to an aircraft departing from the airport under VFR.

1–2–2. ABBREVIATIONS

a. AIT. Automated Information Transfer.

b. ATAP. Automated Terminal Proximity Alert.

c. AOA. At or above.

d. AOB. At or below.

e. ATCT. Air Traffic Control Tower.

f. ATIS. Automated Terminal Information Service.

g. CIC. Controller in Charge.

h. CRC. Consolidated Radar Client.

i. EDCT. Expect Departure Clearance Time.

j. IDS. Information Display System.

k. P-ACP. Prearranged Coordination Procedures.

l. RH. Runway Heading.

m. RVR. Runway Visual Range.

n. SAID. Surface Awareness Initiative Display.

o. SOP. Standard Operating Procedures.

p. STARS. Standard Terminal Automation Replacement System. STARS is the terminal control radar software component of vNAS and CRC.

q. TCW. Terminal Controller Workstation.

r. TDLS. Tower Data-link System.

s. TDW. Tower Display Workstation.

t. TMU. Traffic Management Unit.

u. TRACON. Terminal Radar Approach Control.

v. vNAS. Virtual National Airspace System. vNAS is the collective total of all systems and components that make up the virtual air traffic network as simulated in the US.

w. ZDC. Washington ARTCC.

Chapter 2. Operations

Section 1. Operational Positions

2–1–1. TOWER POSITIONS AND FREQUENCIES

TBL 2-1-1
Tower Positions & Frequency Chart

Position	ID	STARS Handoff	Frequency
Clearance Delivery	CD		120.1
Ground Control East	**G1**		**121.9**
Ground Control West	G2		121.7
Local Control East	**LE**	**1T**	**127.45**
Local Control West	LW	1Z	119.3

NOTE –
Bold text is the primary position. CD combines to G1. G1 combines to LE, non-primary ground and local positions combine to the respective primary position.

2–1–2. TRACON POSITIONS AND FREQUENCIES

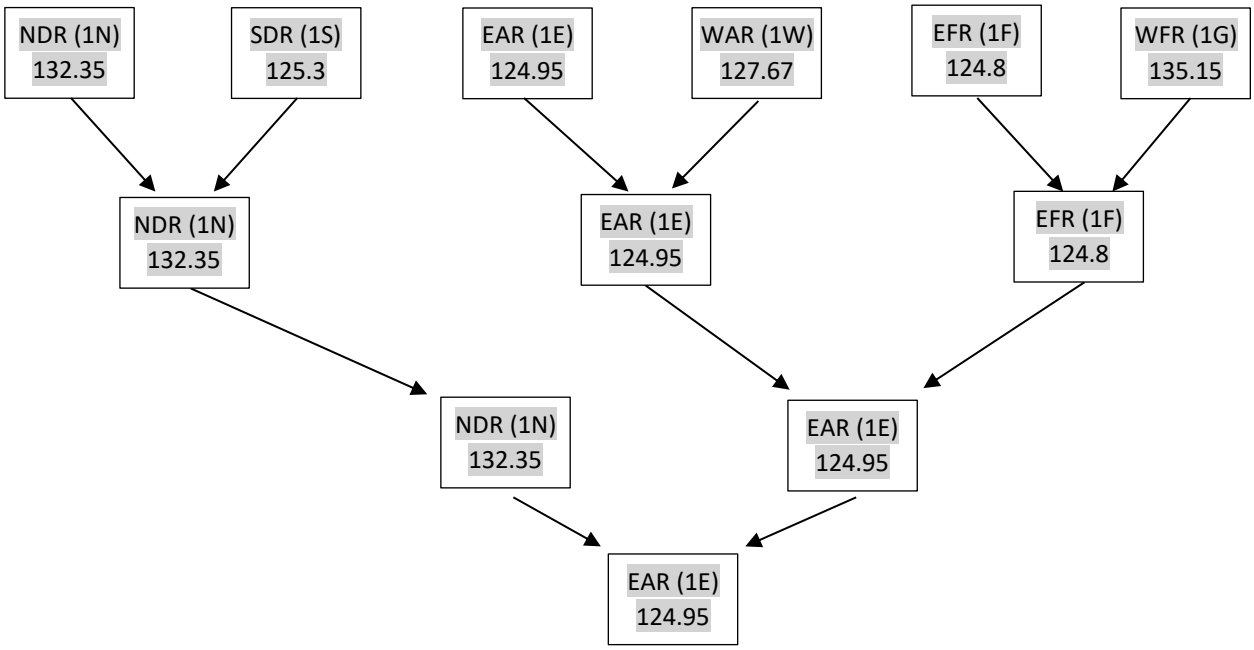
TBL 2-1-2
TRACON Positions & Frequency Chart

Position	ID	STARS Handoff	Frequency
North Departure Radar	NDR / 1N	1N	132.35
South Departure Radar	SDR / 1S	1S	125.3
East Arrival Radar	**EAR / 1E**	**1E**	**124.95**
West Arrival Radar	WAR / 1W	1W	127.67
East Final Radar	EFR / 1F	1F	124.8
West Final Radar	WFR / 1G	1G	135.15

NOTE –
Bold text is the primary position.

2–1–3. CONSOLIDATION

TRACON sectors may be consolidated or deconsolidated at controller discretion in accordance with the configurations defined in this section, unless otherwise directed by vZDC staff or a recognized vZDC event plan. When any TRACON approach sector is staffed, all TRACON sectors must be operationally covered, either individually or through an approved consolidation. Independent sector closures are not authorized while any approach controller is active.



NOTE –
Sectors are linked to the respective sector information section.

Section 2. Runway Configurations

2–2–1. NORTHEAST OPERATIONS

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. Northeast operations may be referred to as “East Operations” alternatively.

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. Southwest operations may be referred to as “West Operations” alternatively.

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:

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

b. Once the last aircraft departures, ensure that no other aircraft depart RDU without a release from RDU TRACON.

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

d. RDU TRACON shall inform the CIC when the sector’s reconfiguration has been completed.

e. Ensure the ATIS has been updated and reflects the proper status.

Section 3. General Operations

2–3–1. VFR ALTITUDE

The VFR altitude that lies between sectors (+500 feet) is controlled by the higher sector.

2–3–2. AUTOMATED POINT OUT

The STARS automated point out capability may be used by all radar positions including local control utilizing the following procedures:

a. The initiating controller must:

1. Ensure either a destination or fix the aircraft is navigating to is entered in the scratchpad.

2. If the aircraft is not in level flight, indicate the climbing or descending to altitude via the assigned altitude scratchpad (+xxx). +130 may be used to indicate aircraft climbing to 13,000 feet or higher altitudes.

NOTE –
The scratchpad altitude must be cleared before an intrafacility handoff is accomplished unless the scratchpad altitude is nonstandard for the operation and necessary for coordination of the handoff.

b. The receiving controller must via automation either:

1. Approve/accept the point out (SLEW).

2. Disapprove/reject the point out (U, N, SLEW).

3. Accept a track being pointed out as a hand off (*, *, SLEW).

2–3–3. SCRATCHPAD PROCEDURES

a. Approach Type Prefix

Approach Type	Prefix
ILS	I
RNAV Y	Y
RNAV Z	Z
RNAV (GPS)	G
VOR/TACAN	U
Localizer	L
Visual (airport in sight)	V
Visual (traffic in sight, entered after clearance given)	T
VFR arrival with runway assignment	F

b. RDU Runway Identifier

Runway	Identifier
05L	5L
05R	5R
14	14
23L	3L

23R	3R
32	32

c. RDU Arrivals. Aircraft landing at RDU will have the primary (Y scratchpad) overwritten with the approach type prefix and runway identifier by the first RDU TRACON controller to work the aircraft. Controllers should make the scratchpad entry after the pilot has been informed of the approach to expect.

EXAMPLE –
ILS RWY 23L: enter "I3L", RNAV Z RWY 05R: enter "Z5R"

d. Satellite Airports. Enter the approach assignment in the Y+ scratchpad. The satellite airport identifier must remain in the primary (Y scratchpad) – *do not* overwrite the populated destination airport field. For satellite airport runway, use the appropriate prefix as defined in paragraph 6-2-5a and the appropriate runway number.

EXAMPLE –
Scratchpad Y: "TTA", Scratchpad Y+: "R03"

e. Departure Entries. Aircraft departing RDU will automatically populate with the departure procedure scratchpad. No entry is required by the departure controller.

Departure Procedure	Scratchpad
BEXGO#	BEX
HOOKZ#	HKZ
HURIC#	HRC
LWOOD#	LWD
OXFRD#	OXF
ROZBO#	ROZ
SHPRD#	SHP
PACKK#.SHPRD	PKS
PACKK#.FAY	PKF
PACKK#.ROZBO	PKR
RDU#.GSO	RDG
RDU#.FAY	RDF
RDU#.ROZBO	RDR

2–3–4. INFORMATION DISPLAY SYSTEM (IDS).

Controllers in all positions will utilize the vZDC IDS. IDS displays pertinent information based on the position being worked and helps provide situational awareness to controllers working adjacent positions.

Section 4. Surface Awareness Initiative Display

2–4–1. OVERVIEW

The Surface Awareness Initiative Display (SAID) is a tool to improve controller situational awareness and reduce runway incursions. SAID is similar to ASDE-X both visually and in capabilities with several key differences. Notably, SAID does *not* provide safety logic and alerting.

2–4–2. PROCEDURES

a. Use SAID to improve situational awareness of aircraft operating on the ground, especially during lower visibility operations.

b. Line up and wait (LUAW) procedures are not changed with the use of SAID.

REFERENCE –
vZDC-RDU-P-01F, para 5–2–2, Line Up and Wait (LUAW).
FAA JO 7110.65BB, para 3-9-4, Line Up and Wait (LUAW).

c. Use of the departure scratchpad information that is populated is approved for identifying the departure procedure to be flown and to aid in sequencing of departures.

Chapter 3. Clearance Delivery

Section 1. Duties

3–1–1. RESPONSIBILITIES

Clearance Delivery must:

a. Formulate and issue IFR clearances and VFR departure instructions to aircraft departing RDU.

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

c. For aircraft departing to a constrained airport (airport subject to a traffic management initiative such as EDCT or Call for Release) CD will:

1. Coordinate with the pilot to determine their expected pushback or planned taxi time.

2. Submit a departure release request through IDS.

3. Ensure the pilot is advised of the anticipated wheels up time.

4. Ensure GC and LC are aware of the aircraft's wheels up time. This may be considered coordinated when the correct release time is displayed in the IDS released aircraft list within IDS.

3–1–2. IFR DEPARTURE INSTRUCTIONS

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

1. Jets – 6,000 feet.

2. Turboprops – 3,000 feet.

3. All other aircraft – 2,000 feet.

b. 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. Unless it is operationally advantageous, TDLS will be used to issue IFR clearances.

REFERENCE –
vZDC-A-01F, para 4-1-4, Virtual Tower Data Link System (vTDLS)

3–1–4. VFR DEPARTURE INSTRUCTIONS

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

1. Destination airport

2. Aircraft type

3. Requested VFR altitude

b. 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.

c. Use of the STARS VFR flight plan entry function is encouraged.

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

3–1–5. DEPARTURE FREQUENCY ASSIGNMENT

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

TBL 3-1-5
Departure Frequency by SID

Departure Procedure / Direction	Departure Sector
BEXGO#	NDR (1N)
HOOKZ#	SDR (1S)
HURIC#	SDR (1S)
LWOOD#	NDR (1N)
OXFRD#	NDR (1N)
PACKK#	East of 5/23 Extended Centerline – SDR (1S) West of 5/23 Extended Centerline – NDR (1N)
RDU#	
ROZBO#	SDR (1S)
SHPRD#	NDR (1N)

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.

NOTE –
Departures via a SID ensures proper routing via the departure transition areas (DTA).

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. RESPONSIBILITIES

Ground Control must:

a. Sequence aircraft that have the same first fix or direction of departure with other aircraft. Consider departure release times when traffic management initiatives are in effect so departing aircraft do not miss flow times.

b. Keep runway exits clear for landing aircraft.

c. Ensure aircraft have transponders on during all ground operations.

d. Ensure departing aircraft have received the current ATIS prior to start of taxi.

4–1–2. GROUND CONTROL EAST (G1)

a. G1 is authorized to flow traffic westbound on C and J to hold short of taxiway F.

b. The transfer of control point (TCP) for aircraft utilizing C and D is taxiway G. Transfer communications of traffic utilizing taxiway E as the aircraft enters taxi E, and taxiway J as the aircraft passes J4.

4–1–3. GROUND CONTROL WEST (G2)

a. G2 is authorized to flow traffic eastbound on taxiway D to hold short of taxiway J.

b. When runway 5 is in use, flow traffic eastbound on taxiway E.

c. The TCP for aircraft utilizing taxiways C and D is taxiway G. Transfer communications of aircraft utilizing taxiway E as the aircraft enters taxiway E.

4–1–4. 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.

4–1–5. 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.

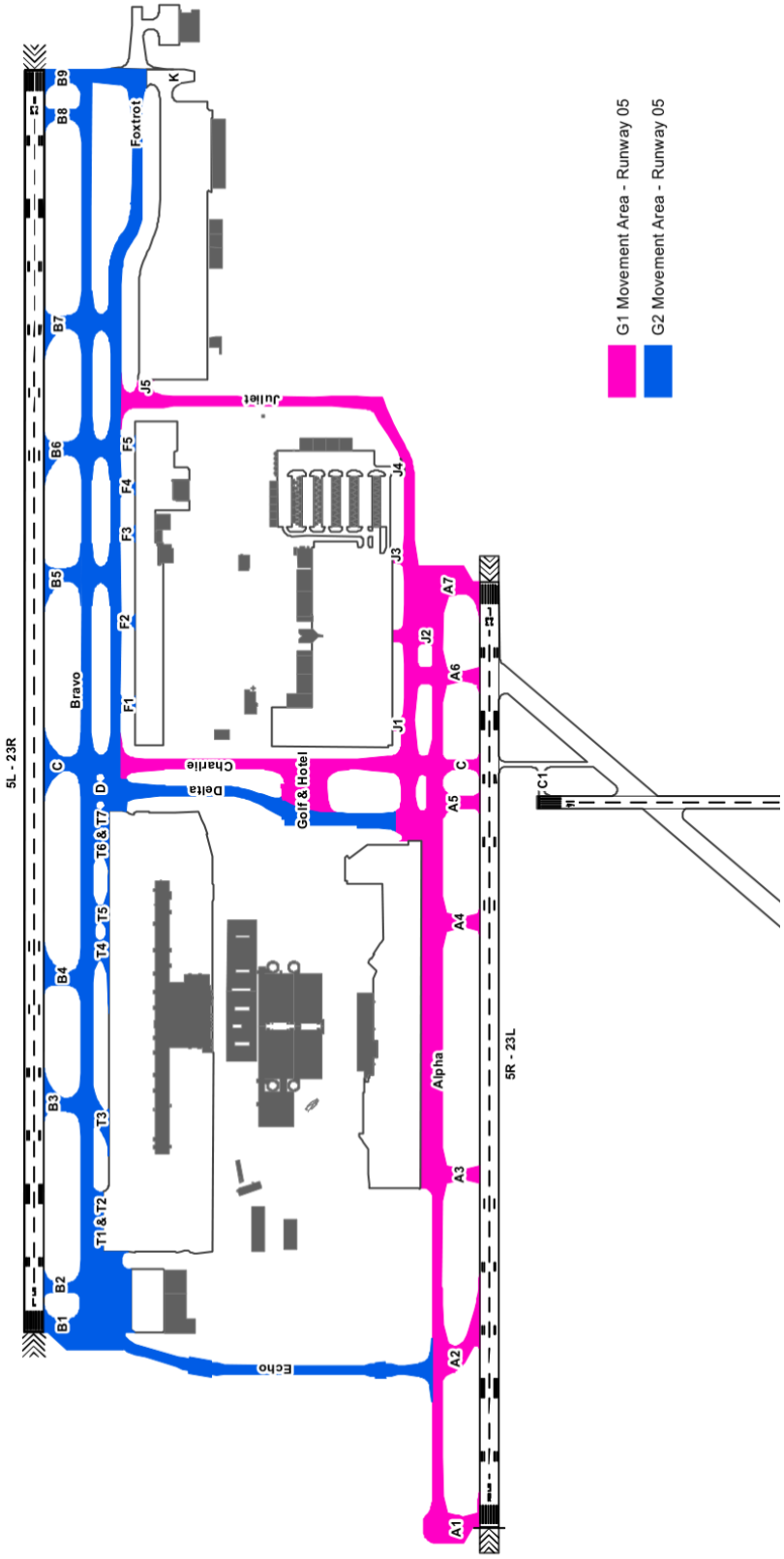
c. The TCP for taxiway E is upon the aircraft turning onto the taxiway.

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

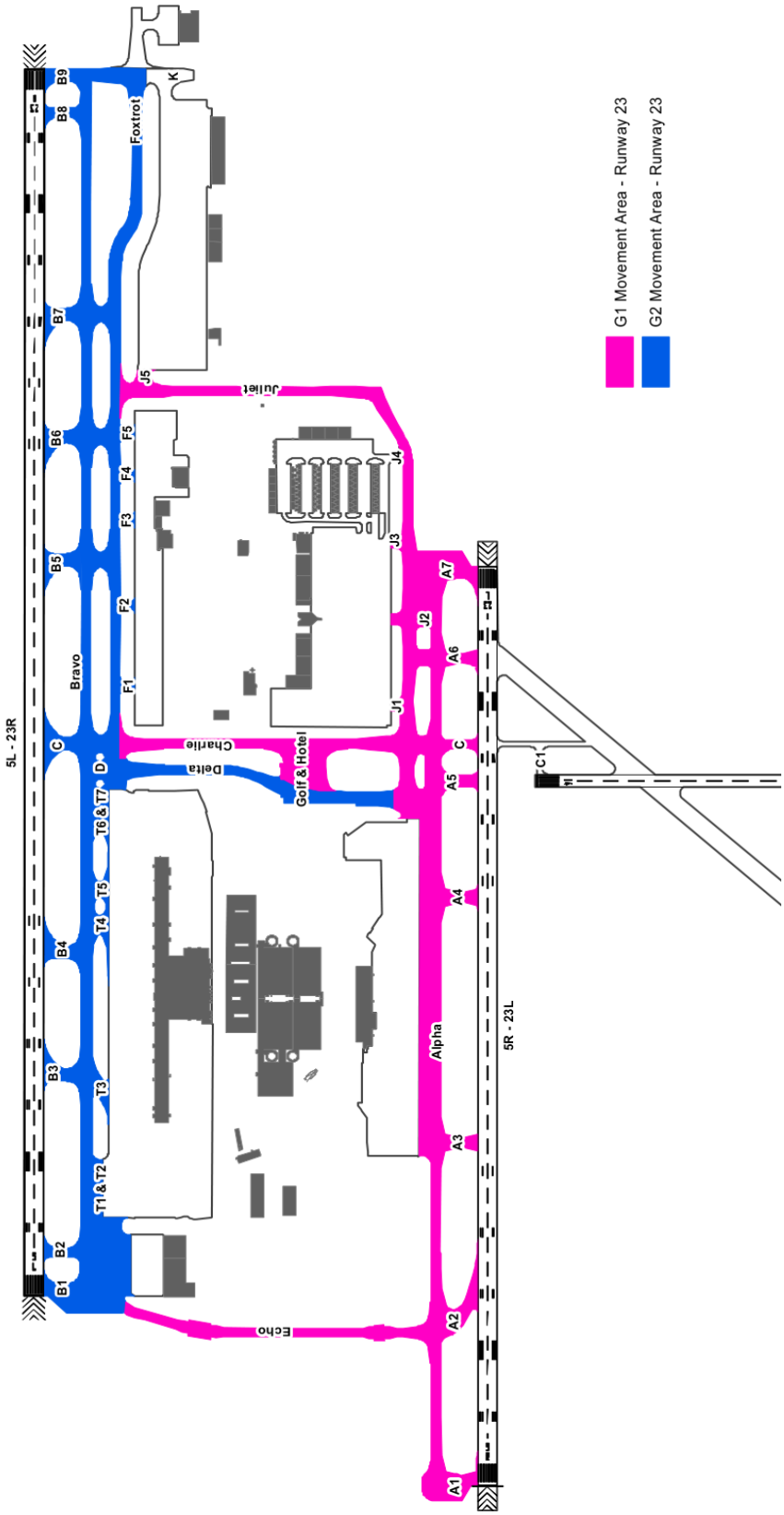
e. Taxiways C, C1, and Z are controlled by Local Control East.

REFERENCE –
vZDC-RDU-P-01F, para 4–1–2, Ground Control East (G1).
vZDC-RDU-P-01F, para 4–1–3, Ground Control West (G2).

4–2–2. GROUND CONTROL JURISDICTION EAST FLOW



4–2–3. GROUND CONTROL JURISDICTION WEST FLOW



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.

c. The ramp around Terminal 2, including Taxiway F, are controlled by ramp control. Ramp control may be opened during events when authorized by the event planner for the specific event. Outside of event times, ground controllers may either assign pushback instructions or provide “pushback your discretion” based on traffic and what is considered most operationally efficient for the current traffic situation.

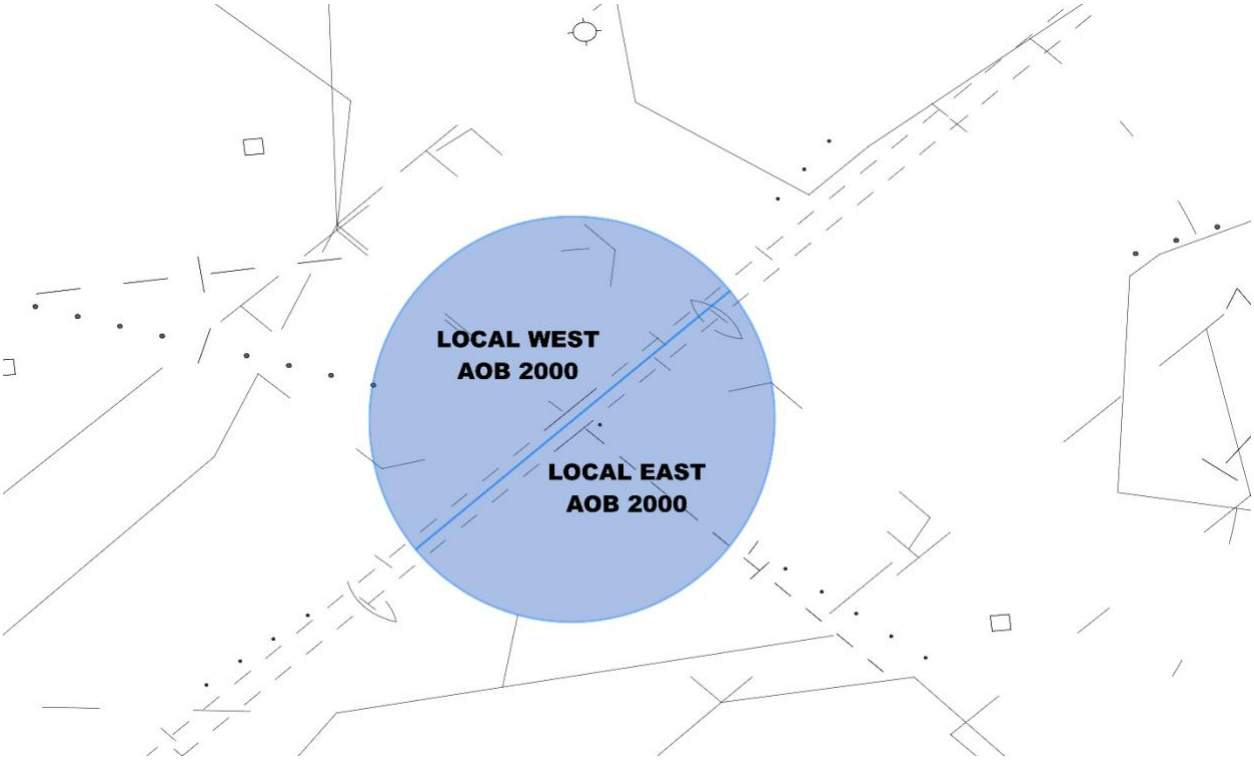
Chapter 5. Local Control

Section 1. Airspace and Responsibilities

5–1–1. Airspace

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

FIG 5-1-1
Local Control Airspace Delegation



5–1–2. Local Control East (LE)

a. Local East is responsible for the airspace as depicted in figure 5-1-1 and runways 05R/23L, 14/32, and for taxiways C, C1, and Z.

b. Runway 14/32 Procedures:

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

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

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

c. Utilize departure headings depicted in paragraph 5-2-1.

d. Coordinate with LCW prior to issuing a takeoff clearance to an aircraft that will enter NDR airspace.

5–1–3. Local Control West (LW)

a. Local West is responsible for the airspace as depicted in figure 5-1-1 and runway 05L/23R.

b. Utilize departure headings depicted in paragraph 5-2-1.

c. Runway 14 arrivals must be coordinated and approved by LCE. Taxiways C, G, H, D, J, and A between C and D, F and B between C and D are clear of traffic.

5–1–4. SEPARATION

Local Control East and West must:

a. Be responsible for separation within Tower airspace between:

1. Arrivals and arrivals.

2. Arrivals and departures.

3. Initial separation of successive departures.

4. Departures and missed approaches/go-arounds.

5. Tower local traffic and overflights from departure(s), arrival(s), and go-arounds.

b. Advise final radar when touch and go traffic operations are in progress and when they have terminated.

Section 2. Departure Procedures

5–2–1. DEPARTURE INSTRUCTIONS

All departures shall be assigned a heading in their takeoff clearance in accordance with table 5-2-1a and table 5-2-1b "IFR Departure Headings."

TBL 5-2-1a
IFR Departure Headings (West Operations)

Aircraft Type	Departure Sector	
	NDR (1N)	SDR (1S)
Turbojets	RH	210
Turboprops	RH, 270	210, 180
Props	RH, 270, 290, 310	210, 180, 160

TBL 5-2-1b
IFR Departure Headings (East Operations)

Aircraft Type	Departure Sector	
	NDR (1N)	SDR (1S)
Turbojets	035	RH
Turboprops	035, 360	RH, 070, 090
Props	035, 360, 320	RH, 070, 090, 110

5–2–2. LINE UP AND WAIT (LUAW)

a. LUAW procedures are authorized at RDU and must be conducted in accordance with FAAO 7110.65 and 7210.3.

b. 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.

c. 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.

REFERENCE –
vZDC-RDU-P-01F, para 2–4–1, Surface Awareness Initiative Display.

d. Do not authorize an aircraft to line up and wait at any time when the intersection is not visible from the tower (either tower cab view of CRC or a tower view in MSFS).

5–2–3. DEPARTURE RELEASES

a. Automatic departures are authorized. Aircraft subject to a Traffic Management Initiative (TMI) such as an EDCT or call for release program must depart within their designated release validity period. Automatic departures will be suspended until TRACON restores automatic departures when any of the following occur:

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

2. RDU TRACON cancels automatic releases, and local control must call for each departure release.

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

4. An aircraft is departing runway 14/32

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

1. ACID.

2. Runway and departure heading.

3. Initial routing.

5–2–4. TOWER ASSUMED RADAR IDENTIFICATION PROCEDURES

a. Prior to frequency change to departure, the RDU local controller must observe the departing aircraft acquire on the STARS TDW within one mile of departure end of runway. Once this track acquisition occurs, and assuming correct acquisition, then the aircraft may be switched to departure.

b. If acquisition does not occur, then the local controller must notify the RDU departure sector controller *before* frequency change to departure occurs and provide the callsign of the aircraft and its SID and assigned heading.

c. The primary sector performing departure servicer will utilize autotrack for all RDU departures. If NDR (1N) and SDR (1S) are decombined, then the sector that is expected to service the majority of departures (i.e. event traffic) will use autotrack.

Section 3. Arrival Procedures

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

a. 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 paragraph 5-2-1 “IFR Departure Headings.”

b. If using a non-standard heading, issue 2,000 feet regardless of aircraft type. Local control shall immediately coordinate with RDU TRACON about the aircraft.

c. Automatic departure releases are suspended following a missed approach/go around until RDU TRACON releases them to Local Control.

d. 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.

5–3–3. ARRIVAL COORDINATION

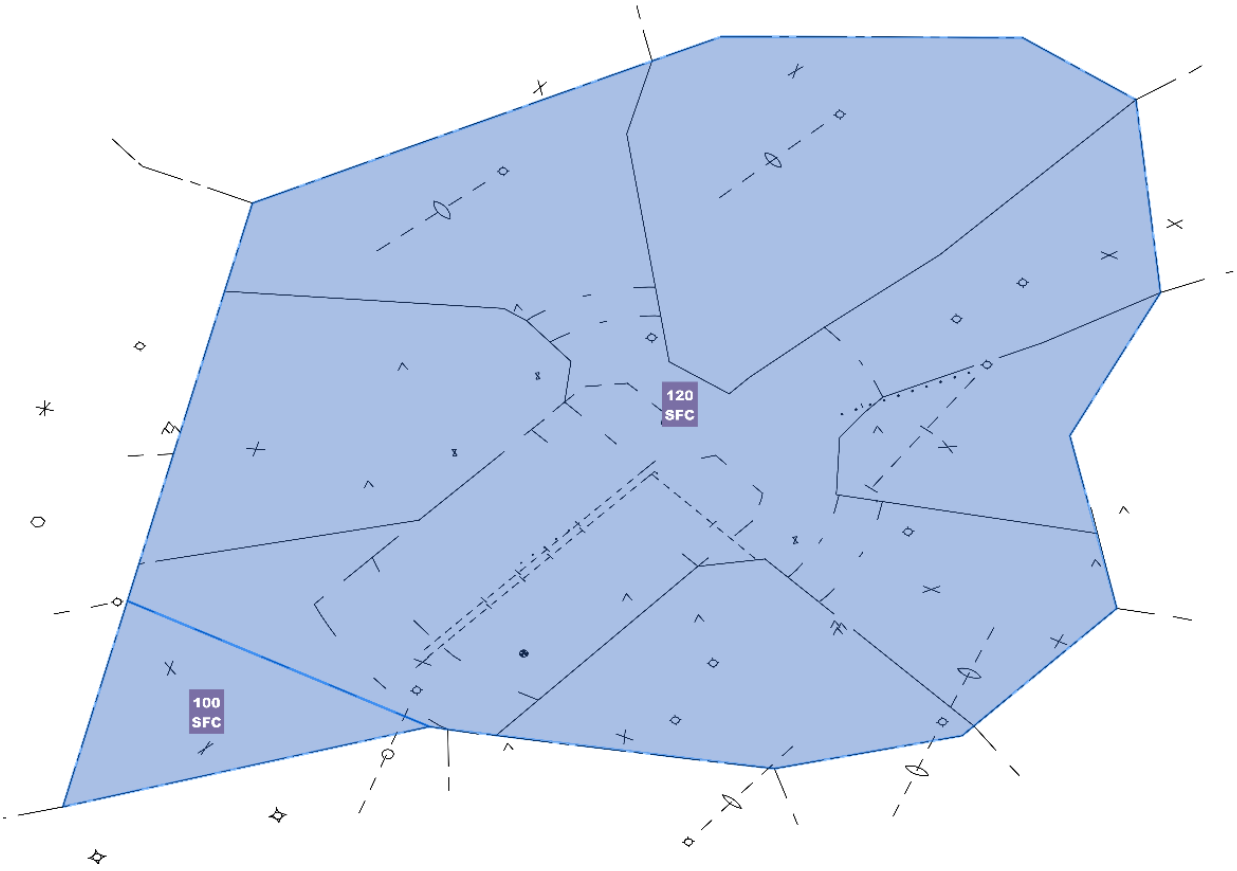
Final will enter the approach the aircraft is flying in the primary (Y) scratchpad. If the landing is planned to anything other than a full stop landing, the final controller will coordinate with LC prior to frequency change to LC.

REFERENCE –
vZDC-RDU-P-01F, para 2–3–3, Scratchpad Procedures.

Chapter 6. Combined TRACON Operations

Section 1. Airspace Overview

6–1–1. TRACON AIRSPACE SUMMARY



6–1–2. DEPARTURE TRANSITION AREAS

FIG 6-1-2a
Northeast Operations

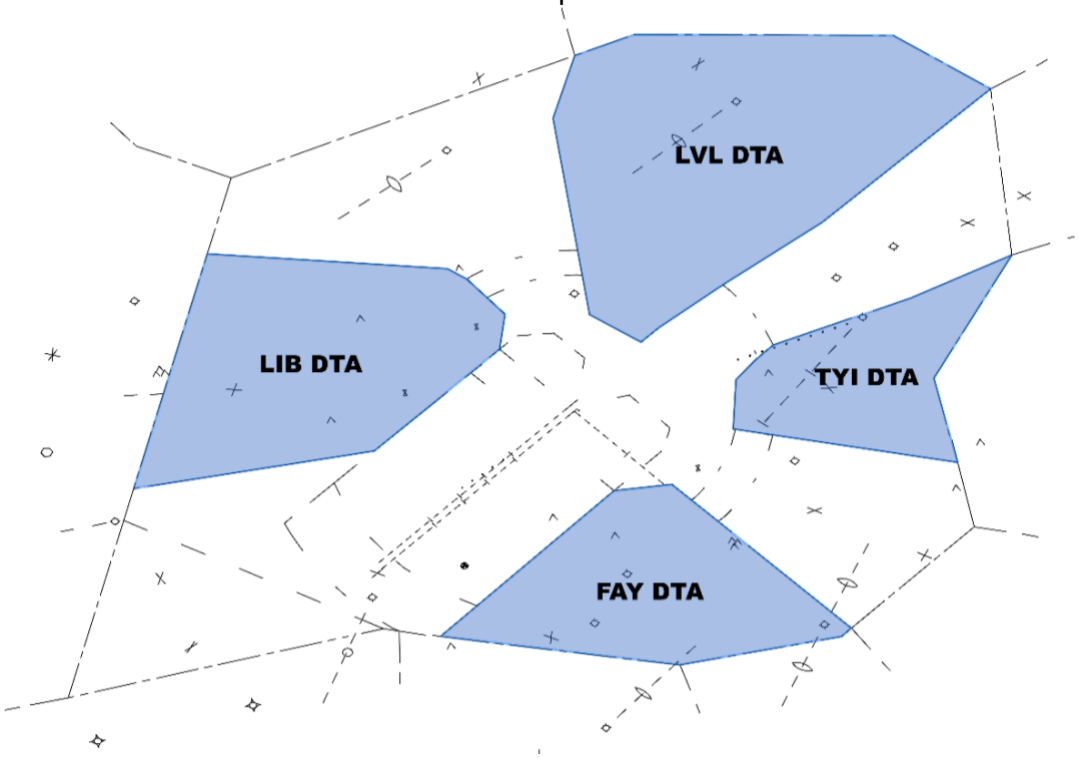
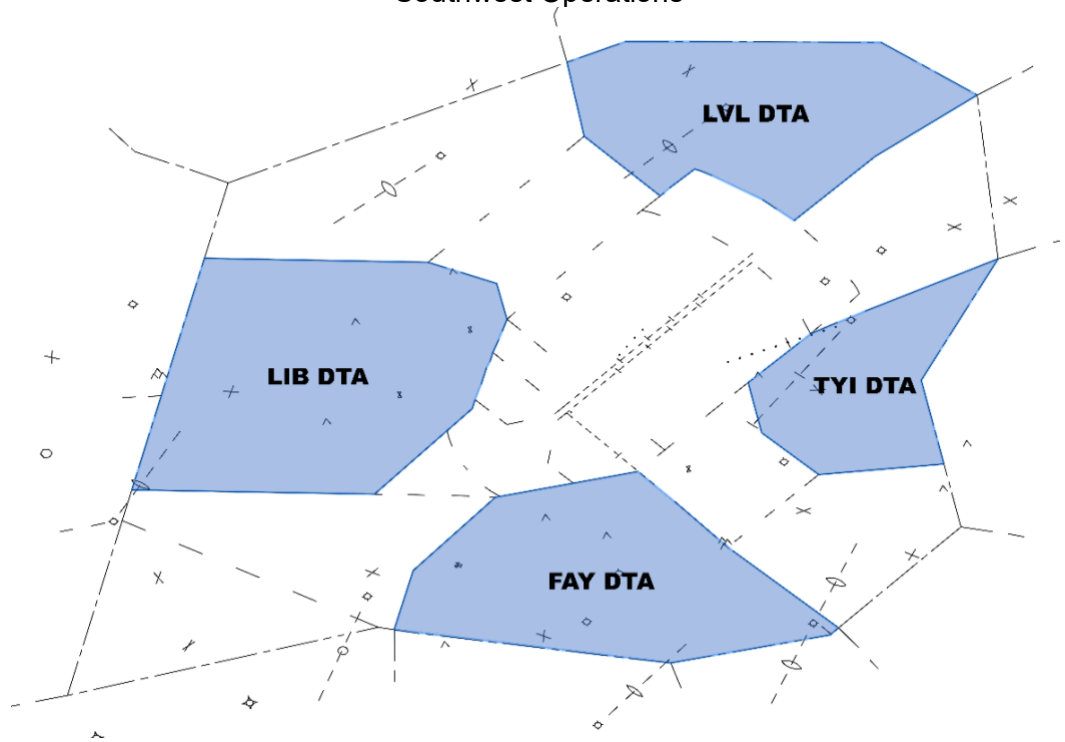


FIG 6-1-2b
Southwest Operations



6–1–3. ARRIVAL TRANSITION AREAS

FIG 6-1-3a
Northeast Operations

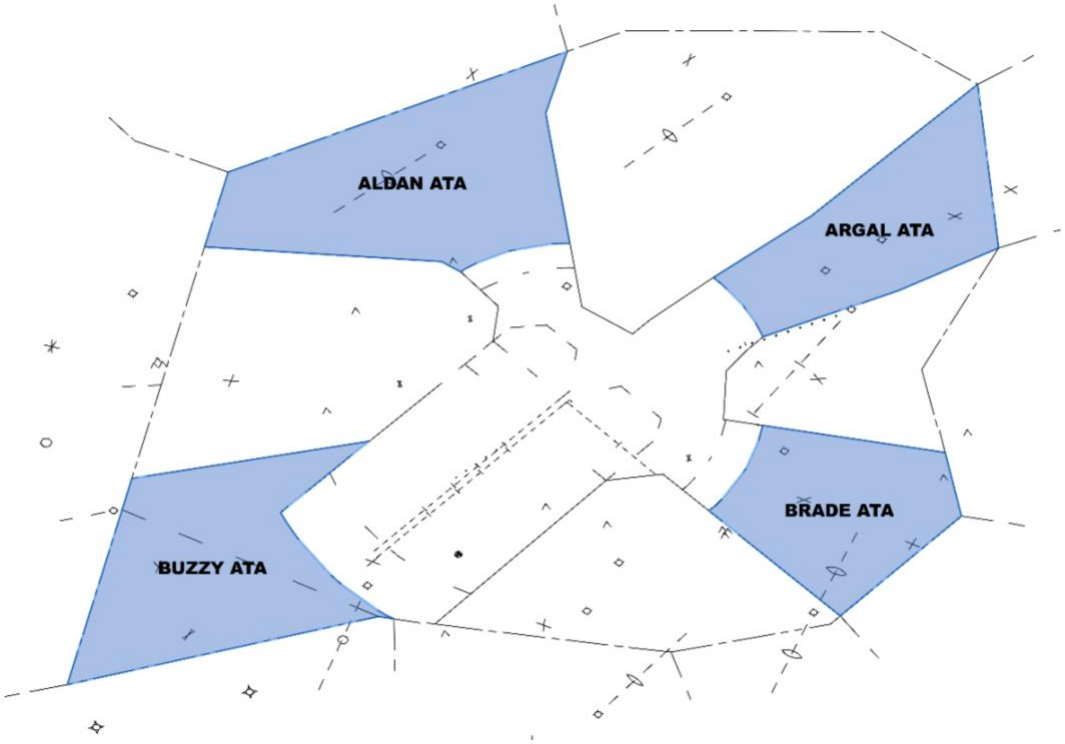
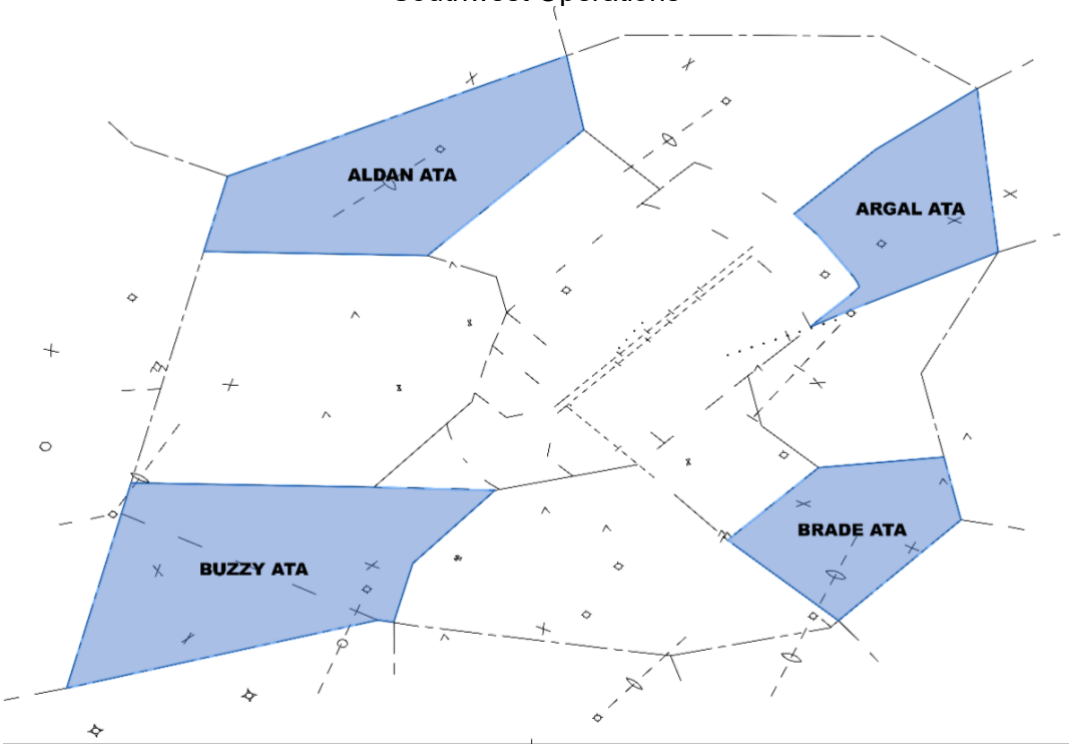


FIG 6-1-3b
Southwest Operations



Section 2. General Procedures

6–2–1. ADVANCE APPROACH INFORMATION

The first radar controller to work a RDU or satellite arrival must advise that arrival of the approach information (ATIS code, weather information, type of approach to expect, etc.) unless stated by the pilot on initial checkin. When the ceiling is less than 2,100 feet or the visibility is less than 3nm, ensure aircraft are assigned an instrument approach procedure to expect and not vectored for a visual approach.

6–2–2. TRANSFER OF CONTROL

All aircraft may be turned up to 30 degrees after completion of a radar handoff and communications have been transferred, unless that aircraft is operating in airspace that is authorized via prearranged coordination procedures (P-ACP).

REFERENCE –
vZDC-RDU-P-01F, para 6–2–4, Prearranged Coordination Procedures (P-ACP).

6–2–3. AIRCRAFT OPERATING BELOW 6500 FEET

Ensure all aircraft operating below 6,500 feet remain at least 10 NM from the departure end of the active parallel runways unless otherwise coordinated. If an aircraft below 6,500 feet is already inside 10 NM from the departure end of the parallel runways, take immediate action to ensure separation.

6–2–4. PREARRANGED COORDINATION PROCEDURES (P-ACP)

a. Prearranged Coordination Procedures (P-ACP) describes the process by which the arrival radar allows departure radar to penetrate or transit their airspace in a manner, which assures standard separation without individual coordination for each aircraft.

b. In the event of prearranged coordination is not practicable, each controller must remain within the confines of their own airspace and verbally coordinate prior to penetrating another controller's airspace.

c. P-ACP are defined for each sector in the sector information section of this order. P-ACP are defined for the following sectors:

1. North Departure Radar (1N/NDR)►.

2. South Departure Radar (1S/SDR)►.

3. East Arrival Radar (1E/EAR)►.

4. West Arrival Radar (1W/WAR)►.

d. P-ACP shall only be utilized by departure to transition RDU airport departures.

e. Departure shall not transition aircraft through arrival's airspace in level flight without coordination.

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

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

6–2–5. STARS ALTITUDE ENTRIES

a. STARS third line altitude entries (+###) may be used by controllers as long as the entry is cleared before initiating a handoff to another TRACON position.

b. Altitudes entered in the third line are intended to affect coordination of a non-standard altitude. Aircraft climbing or descending to an altitude prescribed by this order, either assigned by the controller or descending via a procedure, will not have altitude entries made.

c. Acceptance of a handoff or point out with an altitude entry made indicates approval of that altitude.

EXAMPLE –
Enter +070 for an aircraft descending to 7000 feet instead of via the arrival if that aircraft was instructed to maintain 7000 feet.

Section 3. Departures

6–3–1. PROCEDURES

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.

b. Turbojet departures should be climbed to 12,000 feet or lower filed cruise altitude.

c. High performance turboprop departures (operating 200 knots or greater) that will exit RDU TRACON via the FAY DTA should be climbed to 11,000 feet and handed off to ZDC if requesting at or above 11,000, or lower filed cruise altitude and handed off to FAY.

d. If a departure is routed through an ATA, it should be climbed to 7,000 feet and handed off to the next appropriate facility unless otherwise coordinated.

TBL 6-3-1
IFR Departures

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

Section 4. Arrivals

6–4–1. PROCEDURES

a. Verify assigned altitude (or "descending via" and correct landing direction) if the pilot does not state it on initial check-in. The first RDU TRACON controller will confirm that the aircraft is descending via the arrival and will validate the aircraft's Mode C readout.

b. 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.

c. Assign 210 knots or less to aircraft before the aircraft is assigned a base turn if the aircraft has been vectored off the STAR.

d. 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 has been issued, and the pilot has acknowledged receipt of the visual approach clearance.

e. 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.

f. For aircraft planning a landing other than full stop (i.e. planned missed, option to remain in the tower pattern, etc.) coordination must be accomplished with tower prior to frequency change tower.

TBL 6-4-1
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	

Section 5. Overflights

6–5–1. OVERFLIGHT TRAFFIC

a. Accommodate overflights on their requested routing when traffic permits. Overflight traffic transiting the RDU terminal area should be vectored around RDU arrivals to avoid impacting established spacing and traffic management programs.

b. Departure radars (NDR/SDR) should be the primary sectors to accommodate overflight traffic and should generally point out traffic to arrival radars as necessary.

Section 6. Satellites

6–6–1. DEPARTURE INSTRUCTIONS

Issue departure instructions from non towered airports in accordance with FAAO JO 7110.65, para 4-3-2, *Departure Clearances.* Ensure that coordination with any adjacent sectors is accomplished for issuing a departure release. Once airborne, vector aircraft until traffic permits on course for the aircraft.

6–6–2. ARRIVAL OPERATIONS

Clear aircraft via direct routings to either the destination airport or an initial approach fix based on the approach requested by the pilot. Aircraft should be vectored to avoid arrival radar airspace when possible and descended to remain under RDU STARs.

6–6–3. RDU TRACON SATELLITE AIRPORTS

a. 4W4►

b. 5W5►

c. HNZ►

d. JNX►

e. LHZ►

f. TDF►

g. TTA►

h. W17►

Chapter 7. TRACON Sector Information

Section 1. North Departure Radar – 1N (NDR)

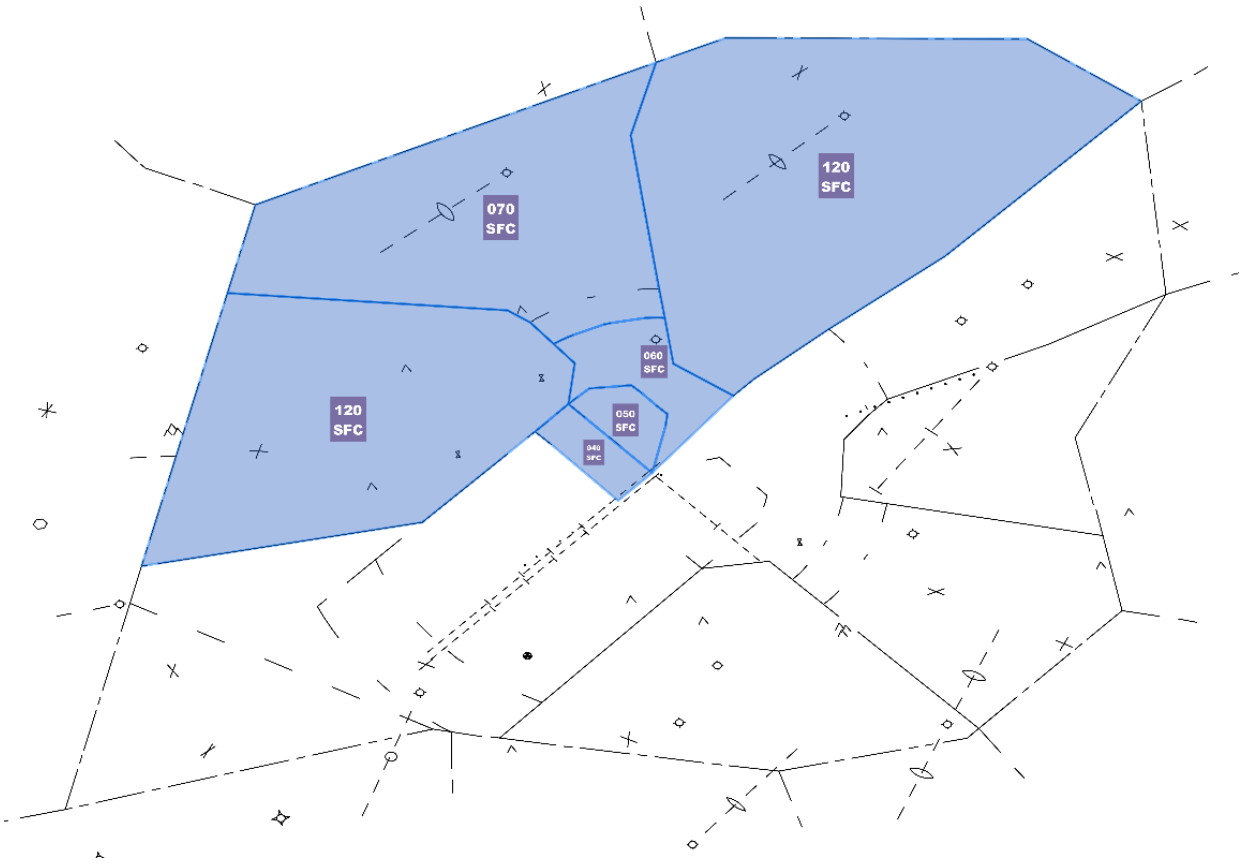
7–1–1. OVERVIEW

The STARS sector identification for NDR is “1N” and the displayed position symbol for NDR is “N.” The NDR sector frequency is 132.35. NDR combines to EAR.

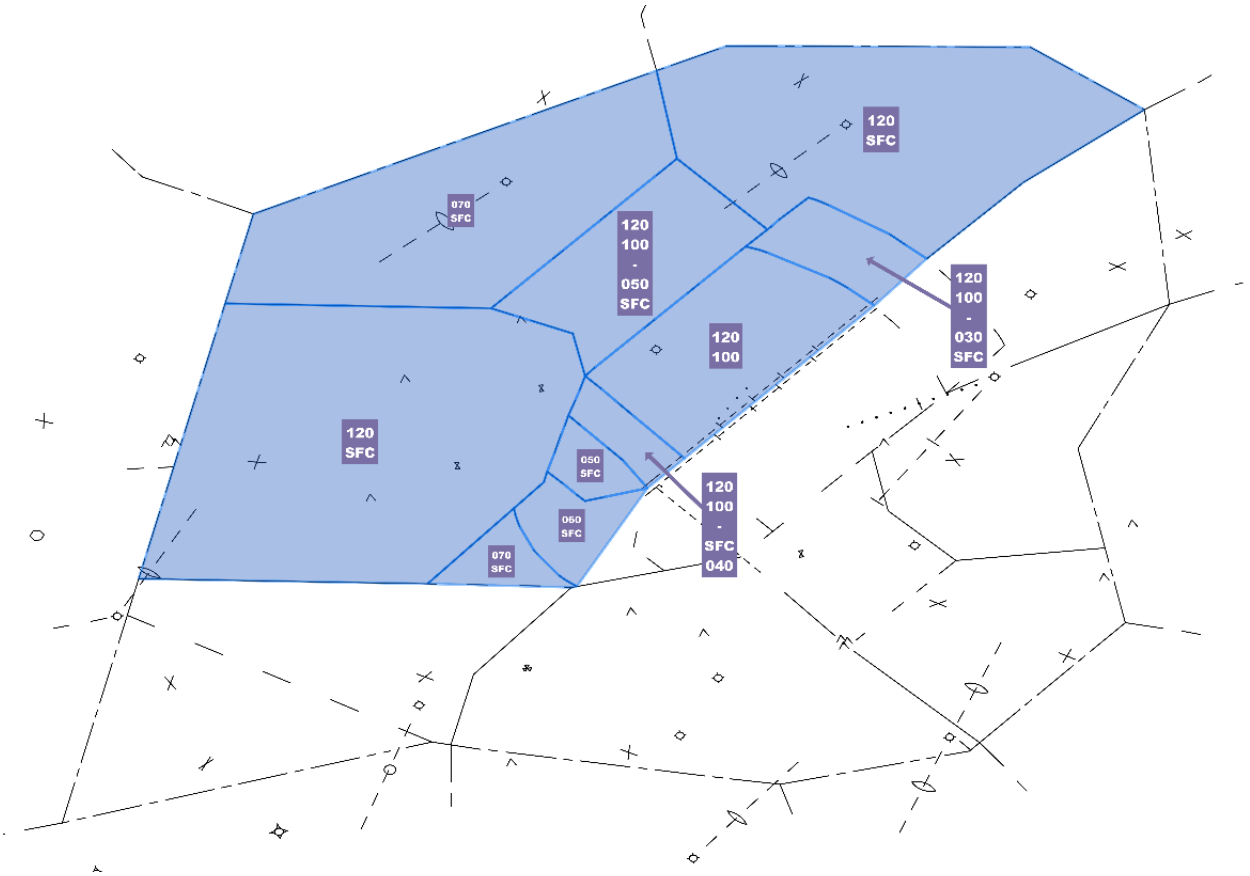
7–1–2. NARRATIVE

NDR manages departures from RDU on the BEXGO#, LWOOD#, OXFRD#, and SHPRD# SIDs. NDR ensures that RDU departures are vectored for spacing and separation with other RDU TRACON traffic and establishes aircraft on their SID or a vector through either the LVL or LIB DTA. Additionally, NDR provides approach and departure control services to several satellite airports north and west of RDU.

7–1–3. AIRSPACE (EAST)



7–1–4. AIRSPACE (WEST)



7–1–5. PROCEDURES

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.

b. Unless otherwise coordinated, vector RDU IFR arrivals at 4,000 feet handed off to final radar. Ensure turbojet aircraft enter final radar airspace at a speed not greater than 210 knots.

c. Raleigh Regional at Person County Airport (TDF).

1. Prior to issuing an instrument approach clearance to, or IFR departure release, contact Gordonsville (ZDC32) and request they block 3,000 feet and below for the operation.

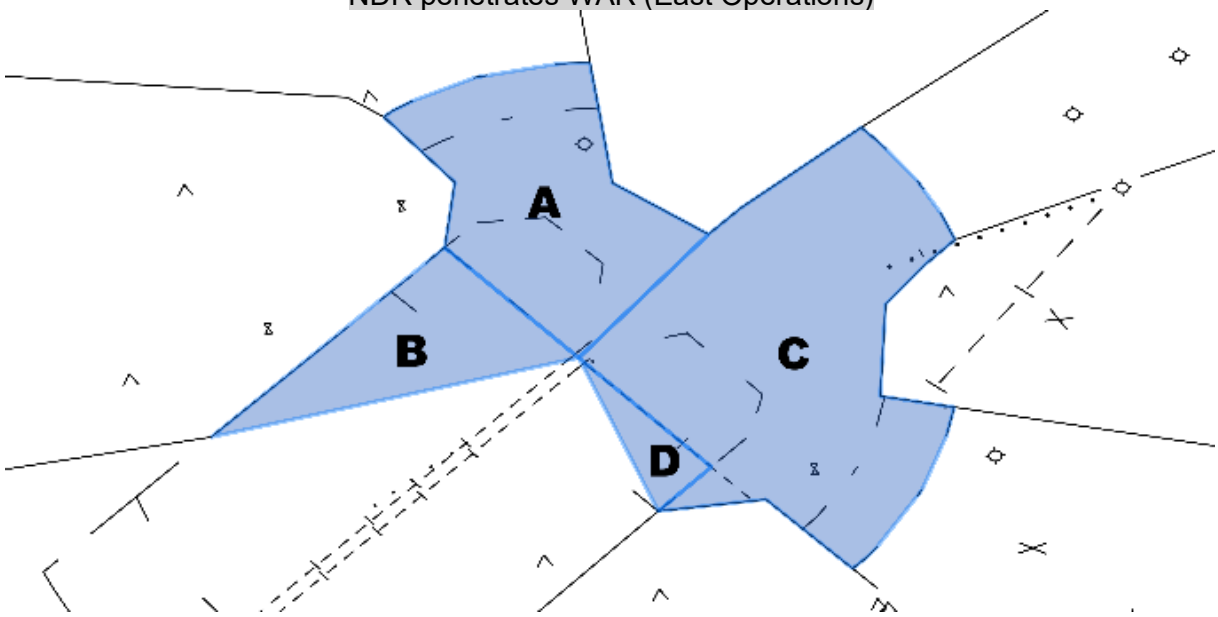
2. Do not allow an RNAV 24 approach while blocking airspace at BUY.

d. Henderson-Oxford Airport 9HNZ). Prior to issuing a clearance for the RNAV RWY 6 at HNZ, contact Gordonsville (ZDC32) and request they block 3,000 feet and below for the missed approach procedure.

7–1–6. PREARRANGED COORDINATION

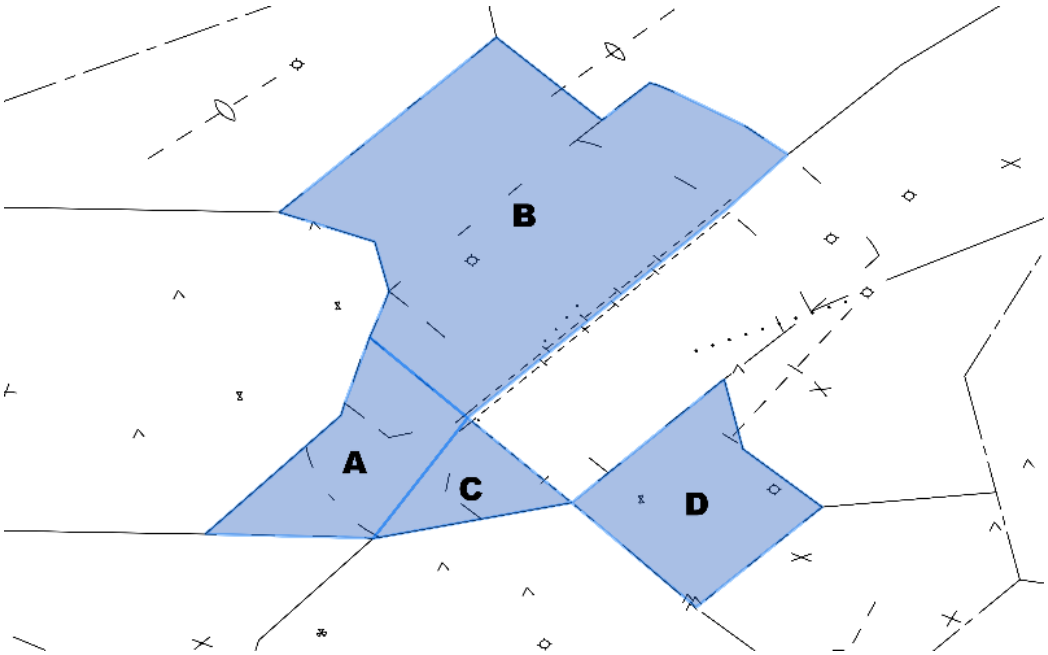
a. NDR is authorized to penetrate WAR (1W)► airspace (east configuration) within the depicted boundaries A and B of FIG 7-1-6a.

FIG 7-1-6a
NDR penetrates WAR (East Operations)



a. NDR is authorized to penetrate WAR (1W)► airspace (west configuration) within the depicted boundaries A and B of FIG 7-1-6b.

FIG 7-1-6b
NDR penetrates WAR (West Operations)



7–1–7. TOWERED AIRPORTS

RDU.

7–1–8. NON-TOWERED AIRPORTS

a. HNZ.

b. TDF.

c. 4W4.

Section 2. South Departure Radar – 1S (SDR)

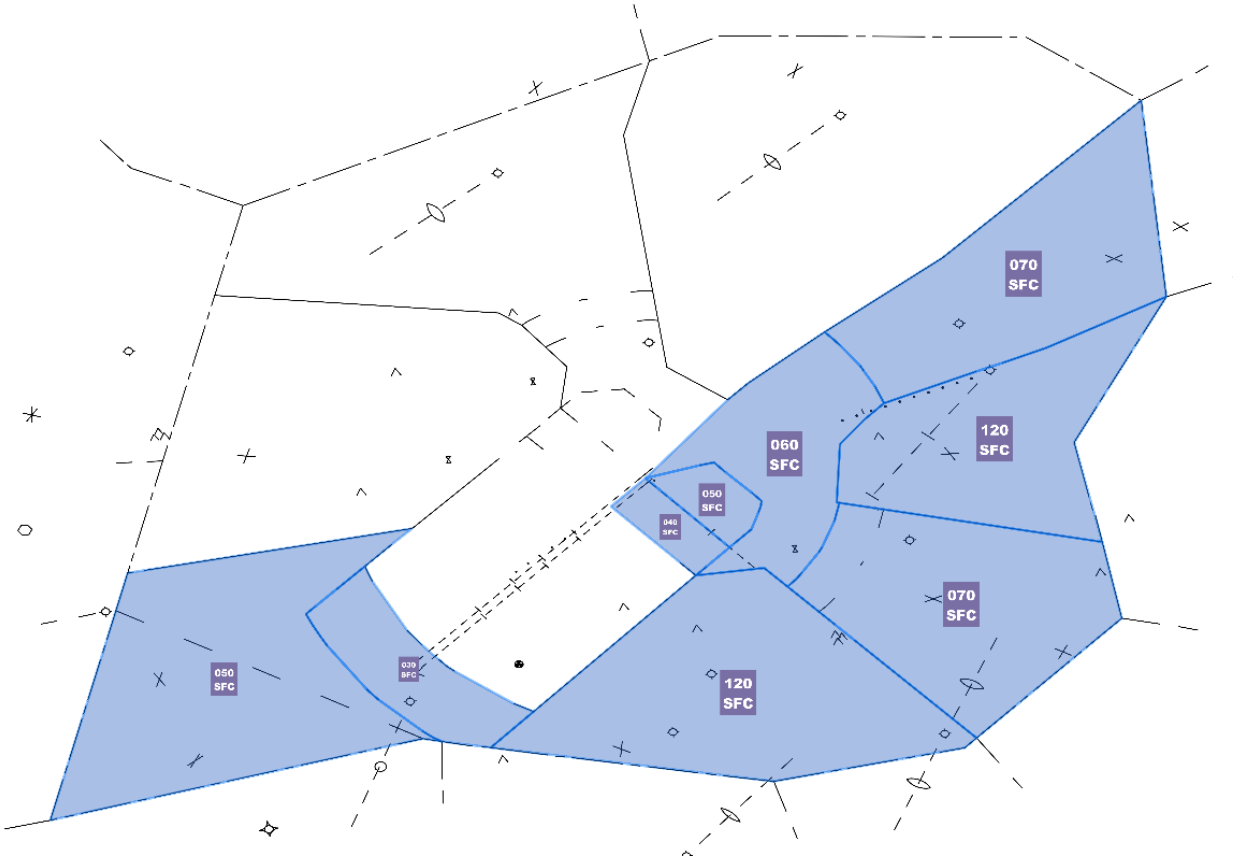
7–2–1. OVERVIEW

The STARS sector identification for SDR is “1S” and the displayed position symbol for SDR is “S.” The SDR sector frequency is 125.3. SDR combines to NDR.

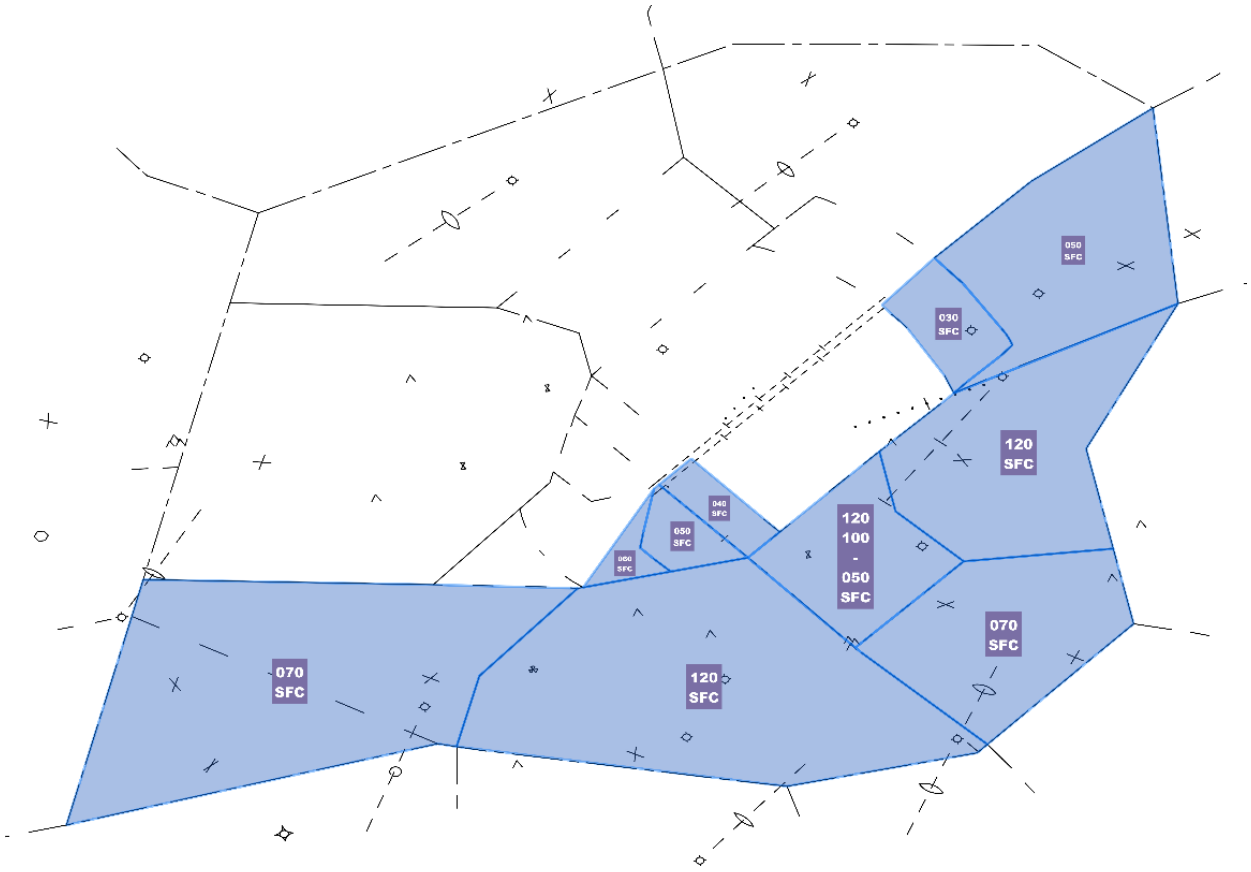
7–2–2. NARRATIVE

SDR manages departures from RDU on the HOOKZ#, HURIC#, and ROZBO# SIDs. SDR ensures that RDU departures are vectored for spacing and separation with other RDU TRACON traffic and establishes aircraft on their SID or a vector through either the TYI or FAY DTA. Additionally, SDR provides approach and departure control services to several satellite airports east and south of RDU.

7–2–3. AIRSPACE (EAST)



7–2–4. AIRSPACE (WEST)



7–2–5. PROCEDURES

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.

b. Unless otherwise coordinated, vector RDU IFR arrivals at 4,000 feet handed off to final radar. Ensure turbojet aircraft enter final radar airspace at a speed not greater than 210 knots.

c. Johnston Regional Airport (JNX). IFR operations in and out of JNX must be coordinated with either GSB APP or Dixon (ZDC09).

d. Raleigh Executive Jetport at Sanford-Lee County (TTA).

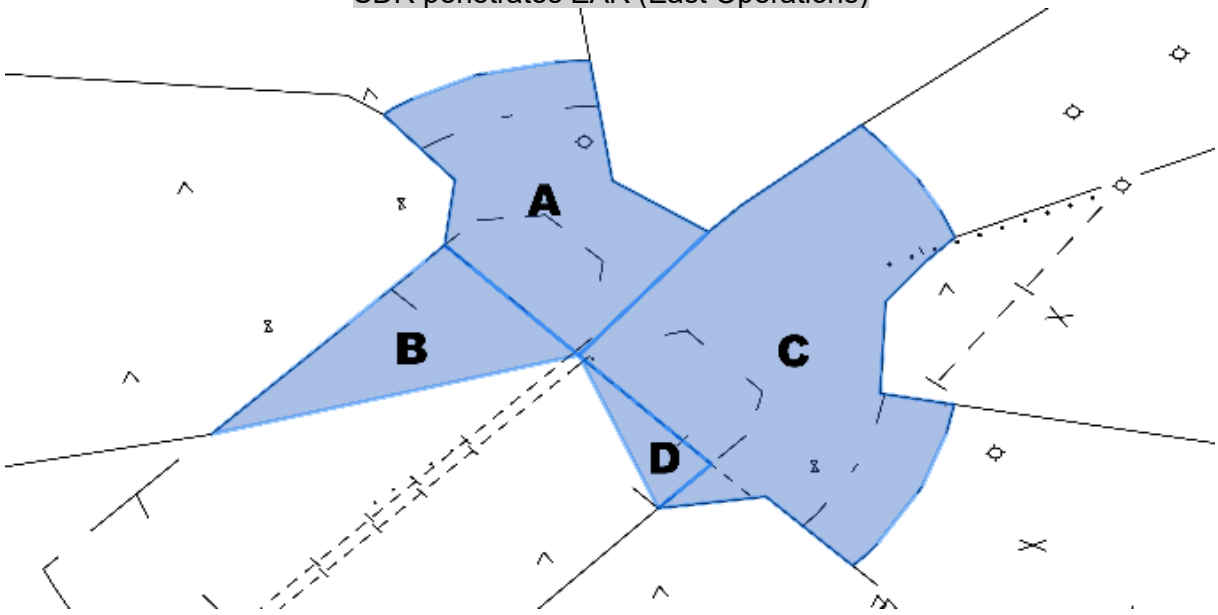
1. Prior to issuing an IFR departure release, ensure EFR and WFR (when RDU is on Runway 5) and FAY approach are blocking 3,000 feet and below for the operation.

2. Prior to allowing an instrument approach, ensure EFR and WFR are blocking for the operation when RDU is on Runway 5 and that FAY approach is block 3,000 and is aware of the approach being conducted.

7–2–6. PREARRANGED COORDINATION

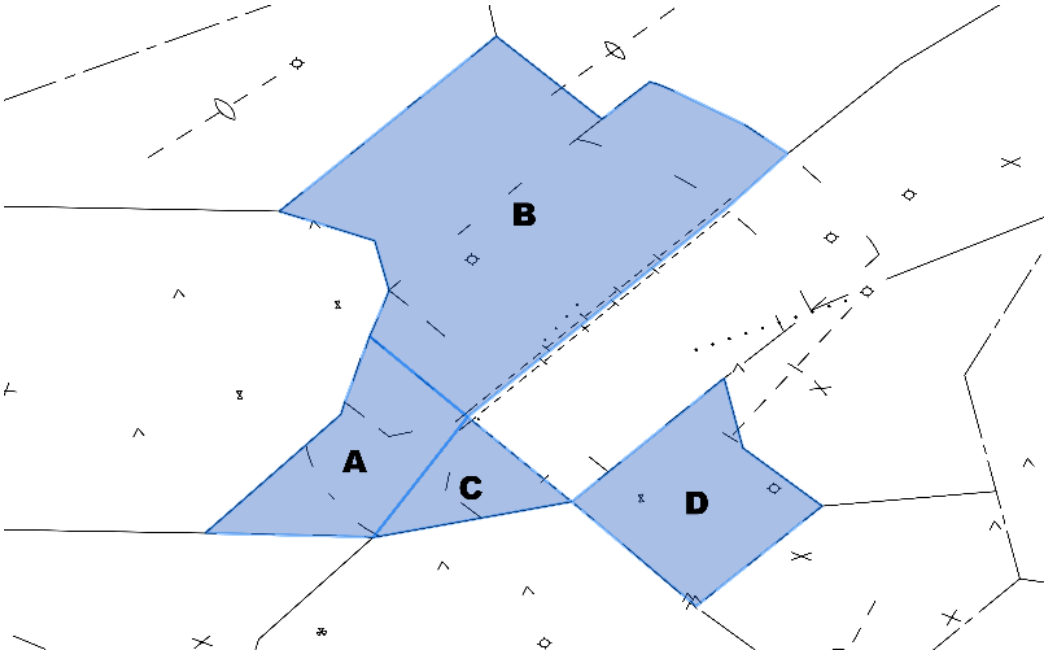
a. SDR is authorized to penetrate EAR (1E)► airspace (east configuration) within the depicted boundaries C and D of FIG 7-2-6a.

FIG 7-2-6a
SDR penetrates EAR (East Operations)



b. SDR is authorized to penetrate EAR (1E)► airspace (west configuration) within the depicted boundaries C and D of FIG 7-2-6b.

FIG 7-2-6b
SDR penetrates EAR (West Operations)



7–2–7. TOWERED AIRPORTS

RDU.

7–2–8. NON-TOWERED AIRPORTS

c. 5W5.

d. JNX.

e. LHZ.

f. TTA.

g. W17.

Section 3. East Arrival Radar – 1E (EAR)

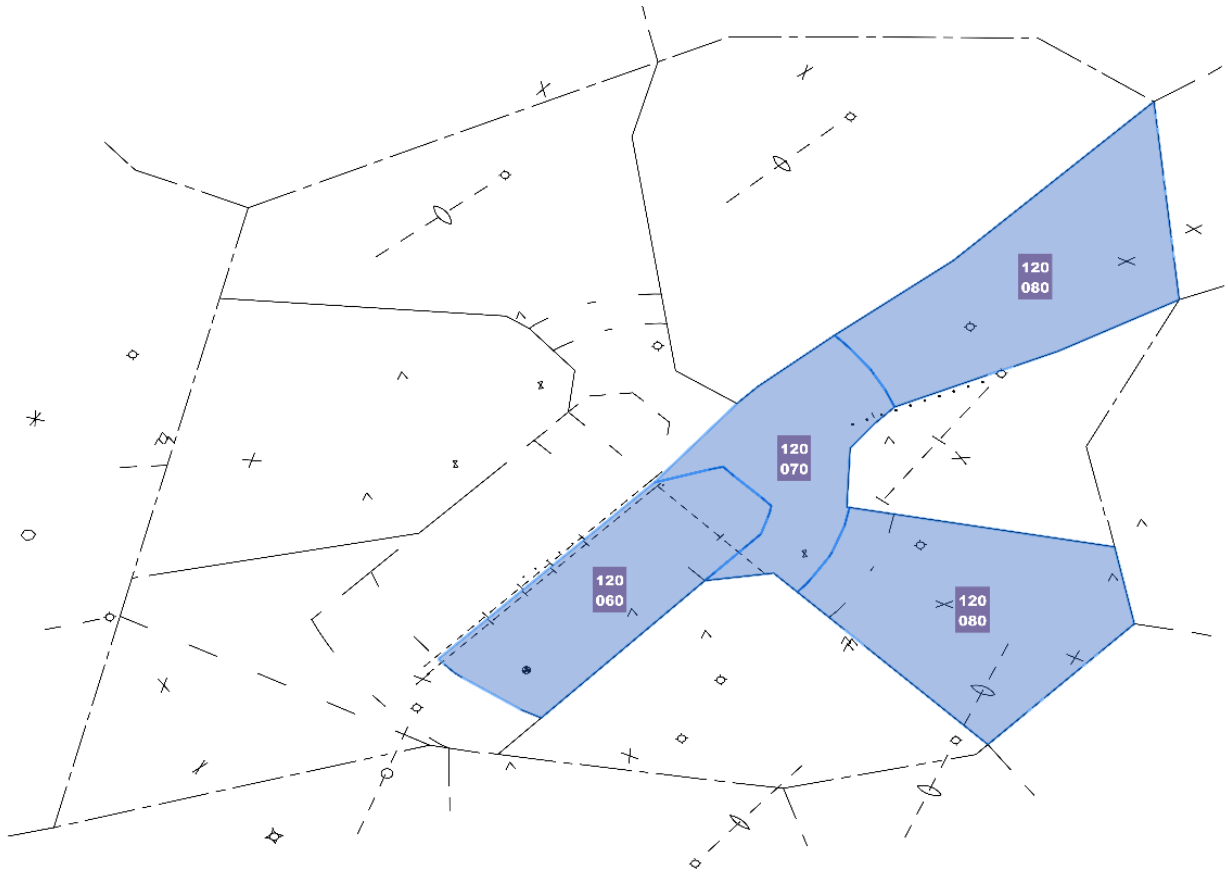
7–3–1. OVERVIEW

The STARS sector identification for EAR is “1E” and the displayed position symbol for EAR is “E.” The EAR sector frequency is 124.95. EAR is the primary position that all sectors combine to for the RDU TRACON combined configuration.

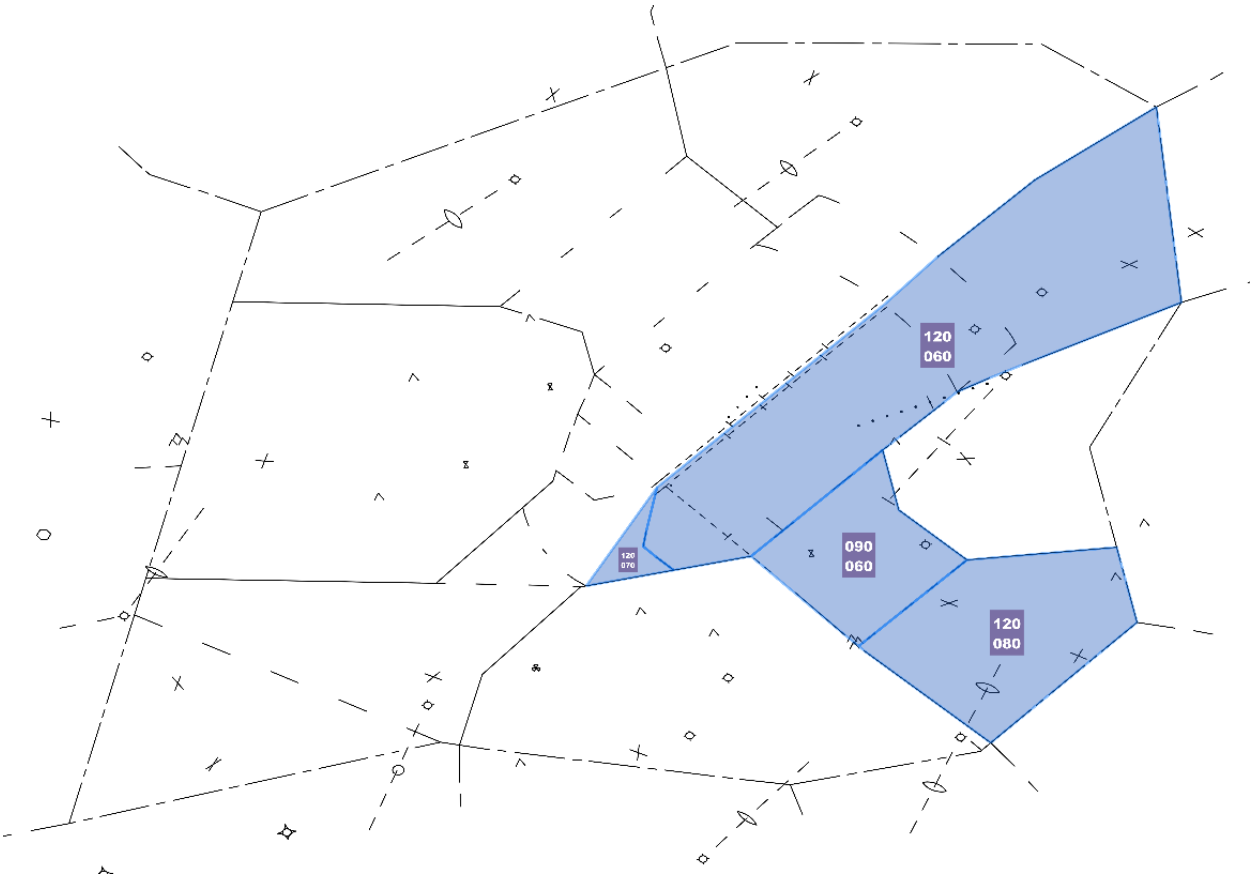
7–3–2. NARRATIVE

EAR serves as a feeder sector to EFR (1F). EAR manages the arrival streams from the BLOGS#, BRADE#, and TAQLE# STARs. Arrivals from the ARGAL ATA are received from Blackstone (ZDC20) and BRADE ATA are received from Dixon (ZDC09).

7–3–3. AIRSPACE (EAST)



7–3–4. AIRSPACE (WEST)



7–3–5. PROCEDURES

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 commenced prior to 20 flying miles from the airport.

c. Unless otherwise coordinated, assign 6,000 feet and 210 knots to turbojet aircraft handed off to final.

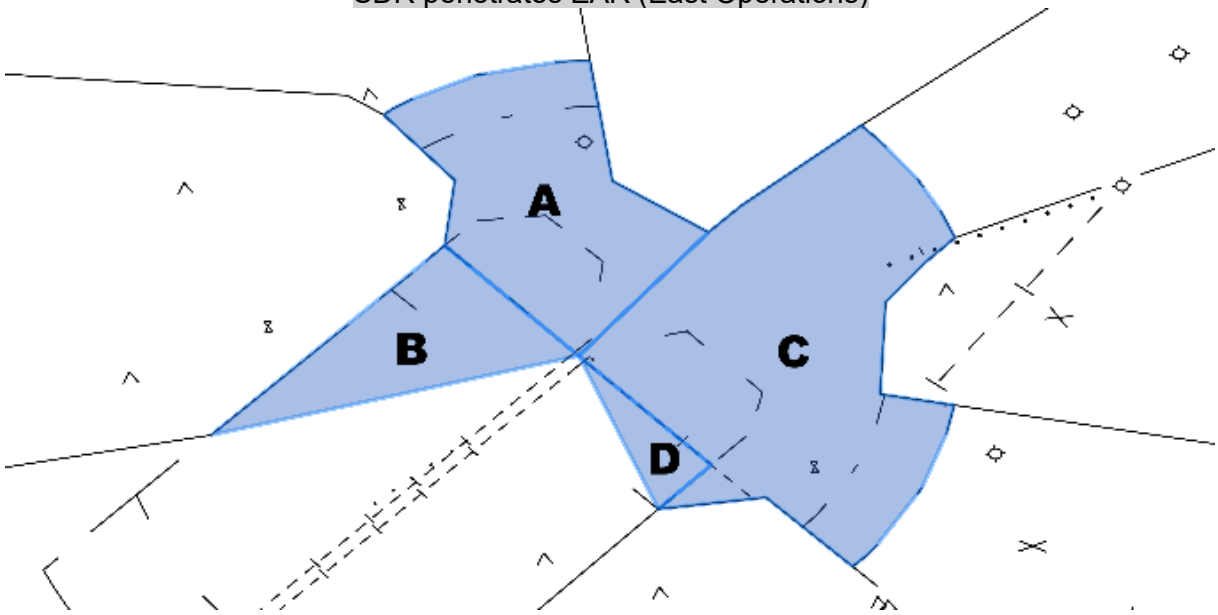
d. Utilize scratchpad entries to reflect assigned landing runway and type approach.

REFERENCE –
vZDC-RDU-P-01F, para 2–3–3, Scratchpad Procedures.

7–3–6. PREARRANGED COORDINATION

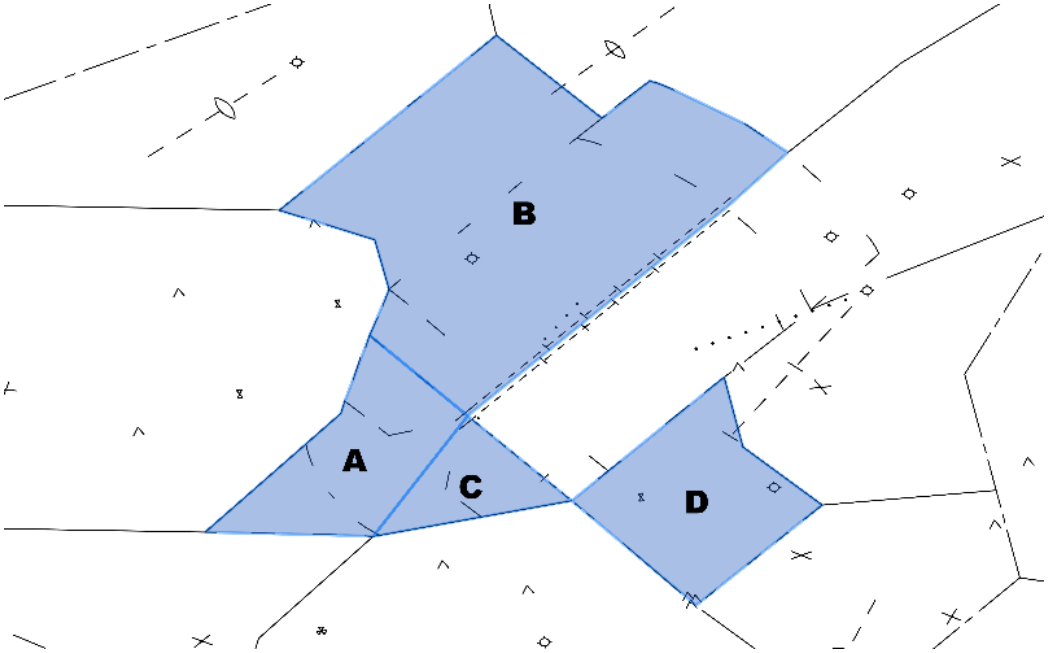
e. SDR (1S)► is authorized to penetrate EAR airspace (east configuration) within the depicted boundaries C and D of FIG 7-3-6a.

FIG 7-3-6a
SDR penetrates EAR (East Operations)



f. SDR (1S)► is authorized to penetrate EAR airspace (west configuration) within the depicted boundaries C and D of FIG 7-3-6b.

FIG 7-3-6b
SDR penetrates EAR (West Operations)



7–3–7. TOWERED AIRPORTS

None.

7–3–8. NON-TOWERED AIRPORTS

None.

Section 4. West Arrival Radar – 1W (WAR)

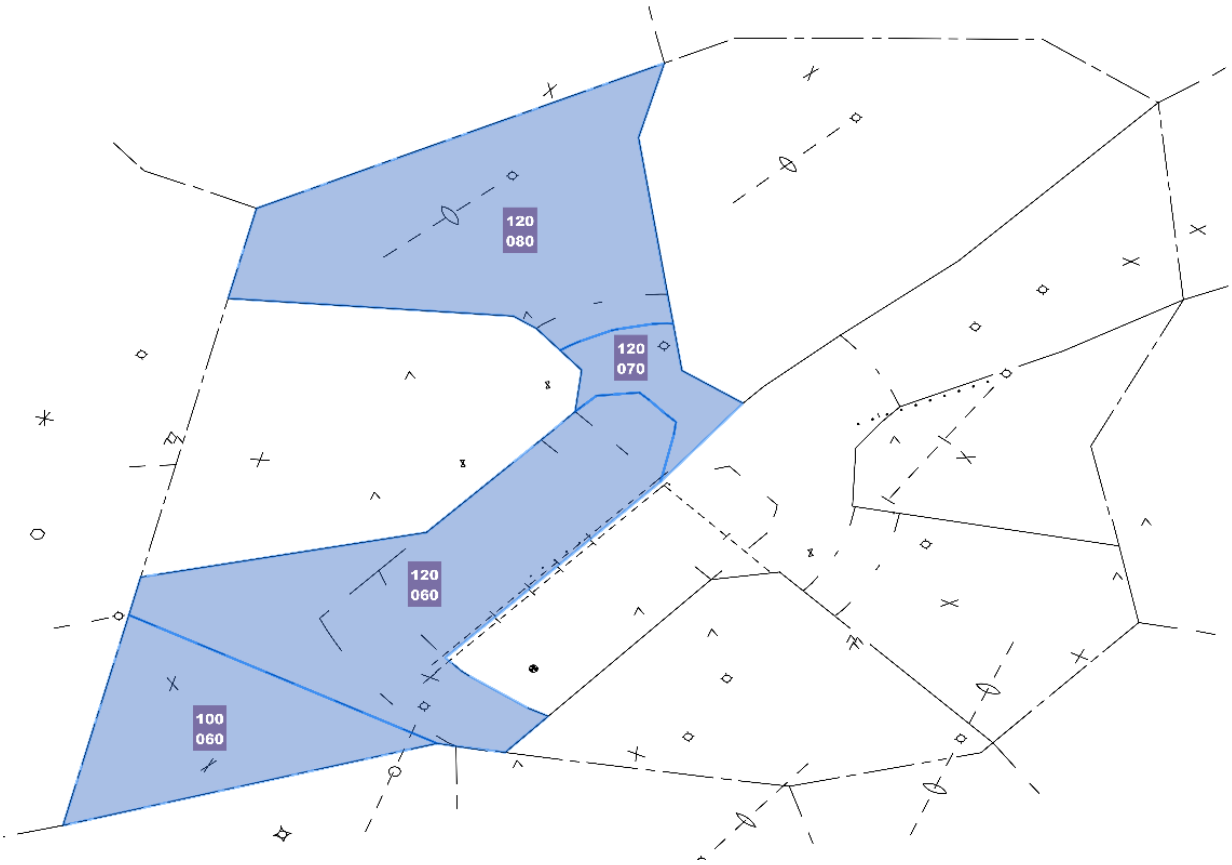
7–4–1. OVERVIEW

The STARS sector identification for WAR is “1W” and the displayed position symbol for WAR is “W.” The EAR sector frequency is 127.67. WAR combines to EAR.

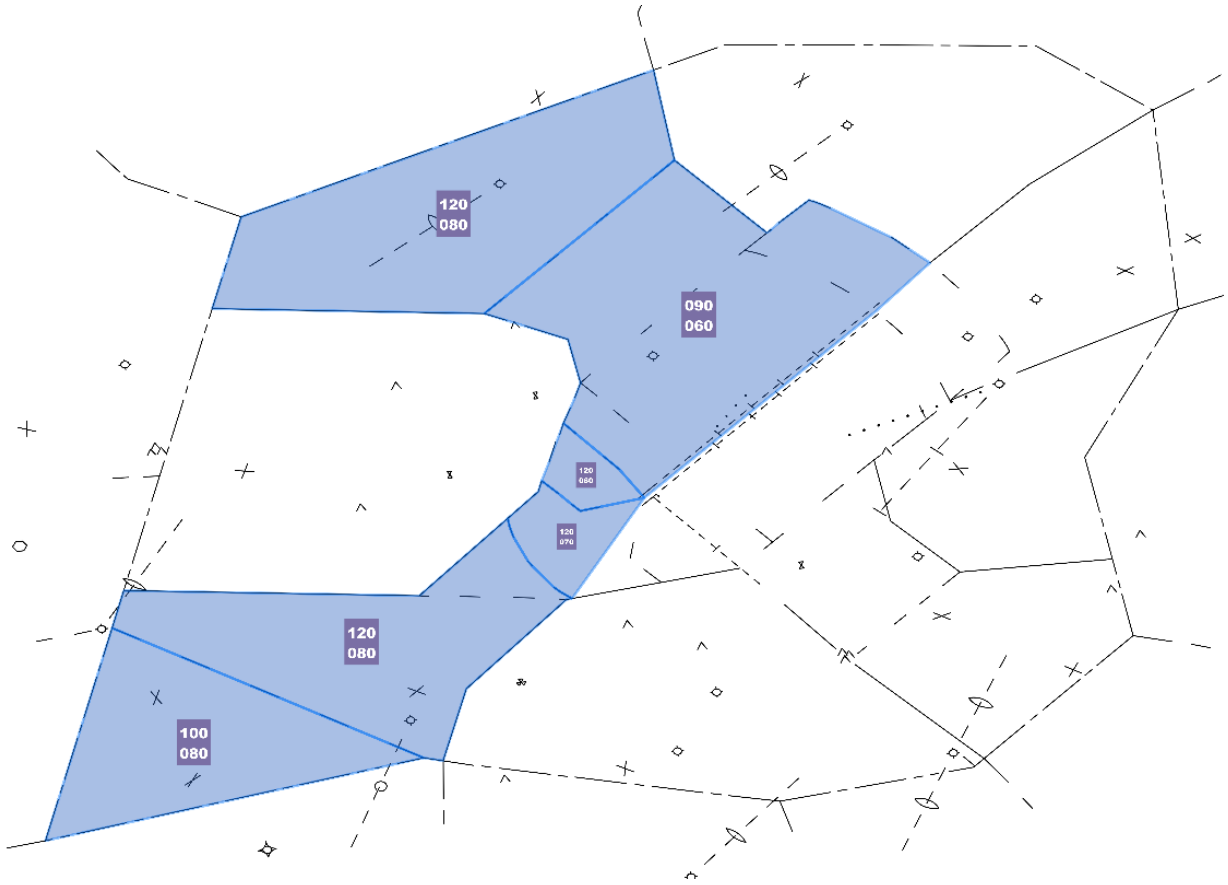
7–4–2. NARRATIVE

WAR serves as a feeder sector to WFR (1G). WAR manages the arrival streams from ALDAN#, BUZZY#, and DMSTR# STARs. Arrivals from the ALDAN ATA are received from Gordvonsville (ZDC32) and BUZZY ATA are received from Dixon (ZDC09).

7–4–3. AIRSPACE (EAST)



7–4–4. AIRSPACE (WEST)



7–4–5. PROCEDURES

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 commenced prior to 20 flying miles from the airport.

c. Unless otherwise coordinated, assign 6,000 feet and 210 knots to turbojet aircraft handed off to final.

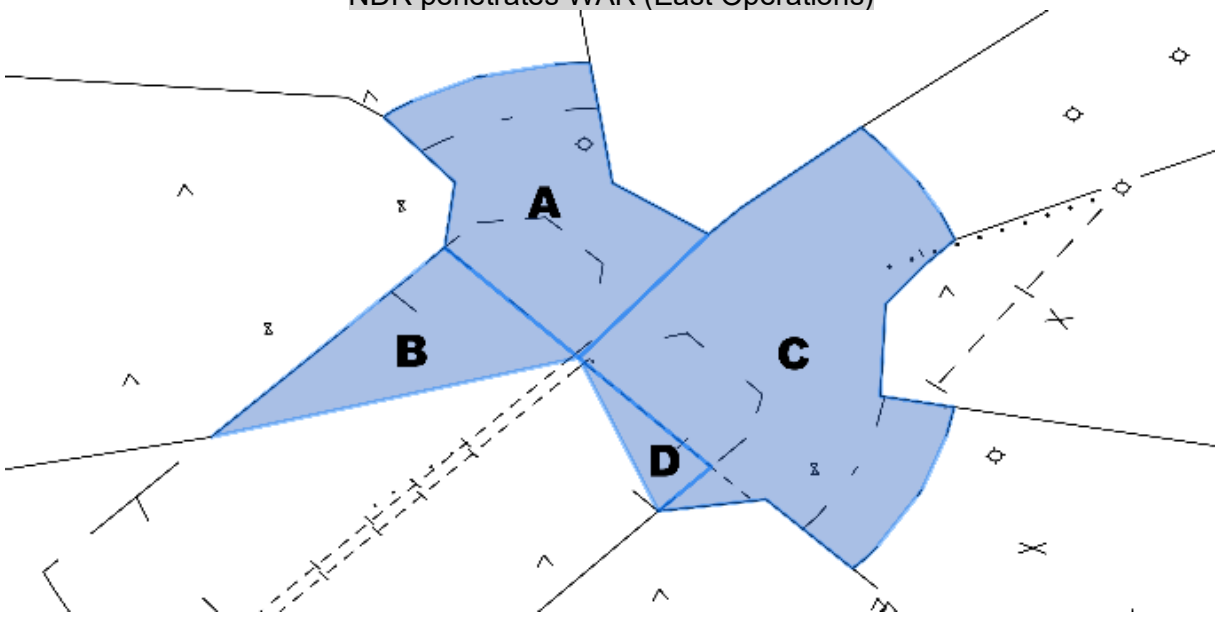
d. Utilize scratchpad entries to reflect assigned landing runway and type approach.

REFERENCE –
vZDC-RDU-P-01F, para 2–3–3, Scratchpad Procedures.

7–4–6. PREARRANGED COORDINATION

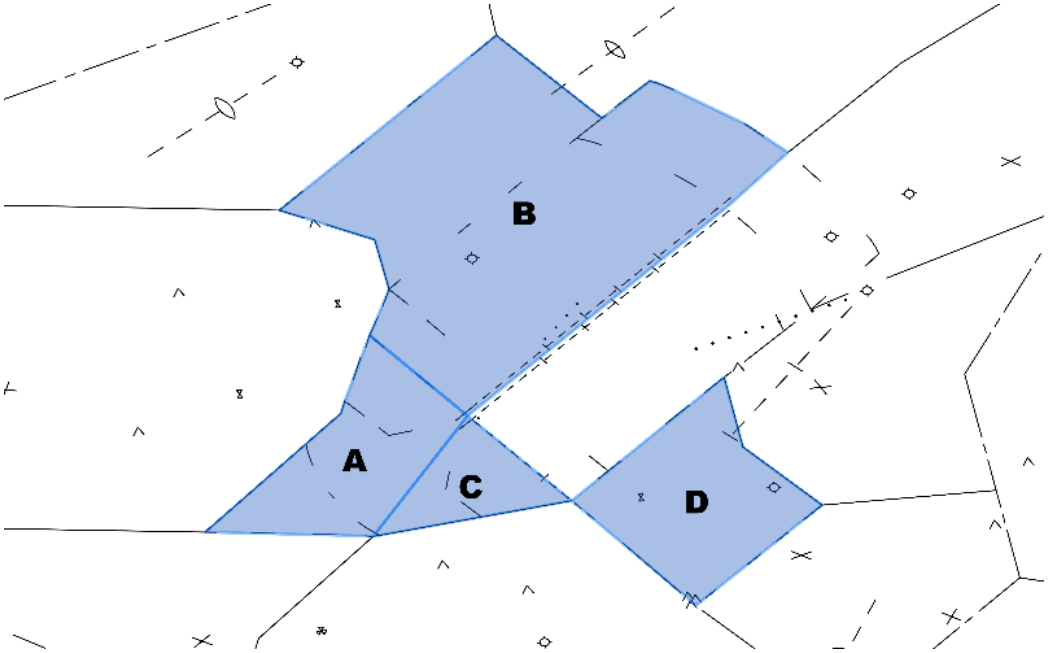
e. NDR (1N)► is authorized to penetrate WAR airspace (east configuration) within the depicted boundaries A and B of FIG 7-4-6a.

FIG 7-4-6a
NDR penetrates WAR (East Operations)



f. NDR (1N)► is authorized to penetrate WAR airspace (west configuration) within the depicted boundaries A and B of FIG 7-4-6b.

FIG 7-3-6b
NDR penetrates WAR (West Operations)



7–4–7. TOWERED AIRPORTS

None.

7–4–8. NON-TOWERED AIRPORTS

None.

Section 5. East Final Radar – 1F (EFR)

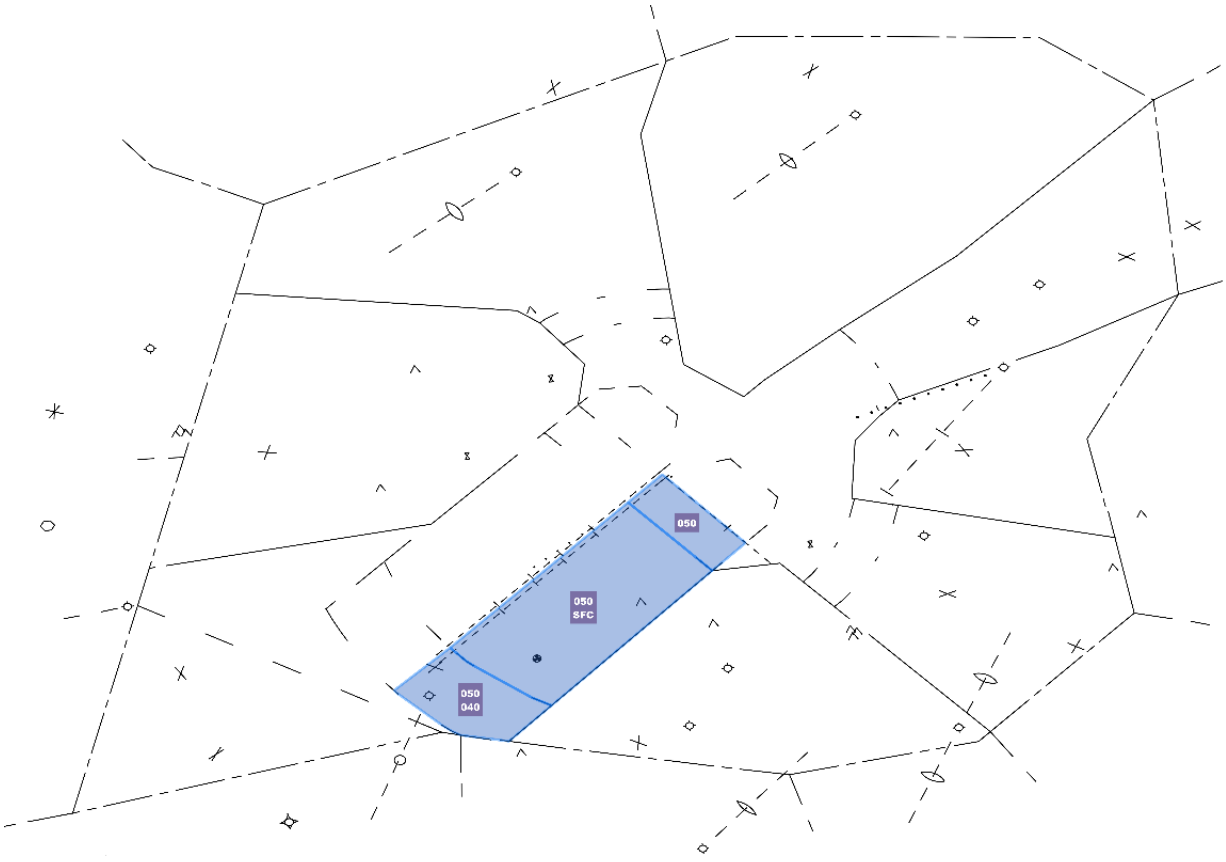
7–5–1. OVERVIEW

The STARS sector identification for EFR is “1F” and the displayed position symbol for WAR is “F.” The EFR sector frequency is 124.8. EFR combines to EAR.

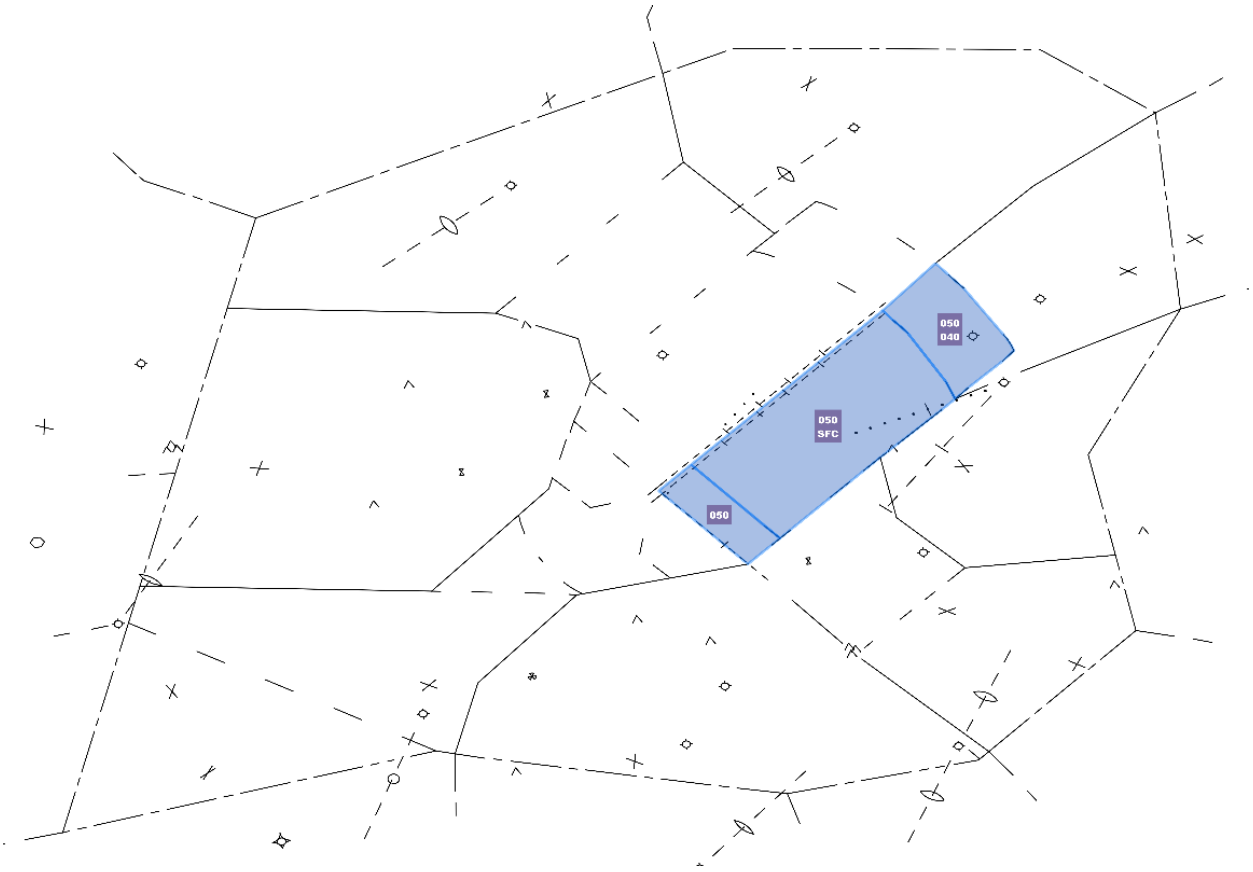
7–5–2. NARRATIVE

EFR is the final sector for Runway 5R in east operations and Runway 23L in west operations. EFR is generally fed arrival traffic from EAR.

7–5–3. AIRSPACE (EAST)



7–5–4. AIRSPACE (WEST)



7–5–5. PROCEDURES

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 or until visual separation is provided by the aircraft or the tower.

e. Unless visual separation is applied or coordination is affected, conduct simultaneous instrument approaches as follows:

1. RWY 23L - Normally intercept the localizer at 3,200 feet inside 10 DME (or DINTS) and 4,000 feet outside 10 DME (or DINTS), and 5,000 feet outside of DUWON.

2. RWY 5R - Normally intercept the localizer at 3,200 feet inside 10 DME (or RATTY) and 4,000 feet outside 10 DME (or RATTY), and 5,000 feet outside of BEICH.

f. 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.

g. Provide WFR (1G) an arrival sequence when simultaneous visual or instrument approaches are in progress. WFR will sequence traffic reference EFR's provided traffic sequence.

h. Coordinate with tower prior to frequency change any aircraft that is planning to terminate the approach with anything other than a full stop landing (i.e. planned missed back to radar, option to remain in the tower pattern, etc.).

7–5–6. PREARRANGED COORDINATION

None.

7–5–7. TOWERED AIRPORTS

RDU.

7–5–8. NON-TOWERED AIRPORTS

None.

Section 6. West Final Radar – 1G (WFR)

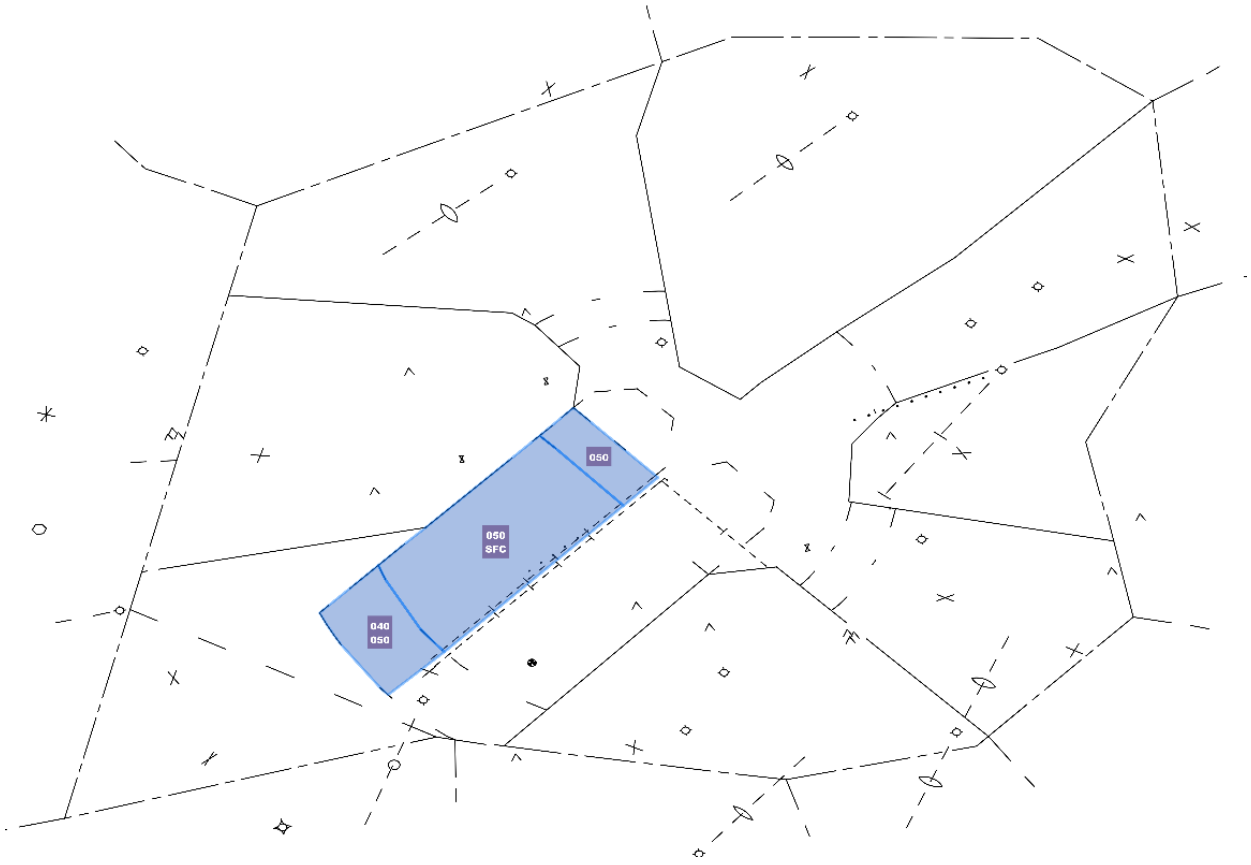
7–6–1. OVERVIEW

The STARS sector identification for WFR is “1G” and the displayed position symbol for WFR is “G.” The WFR sector frequency is 135.15. WFR combines to EFR.

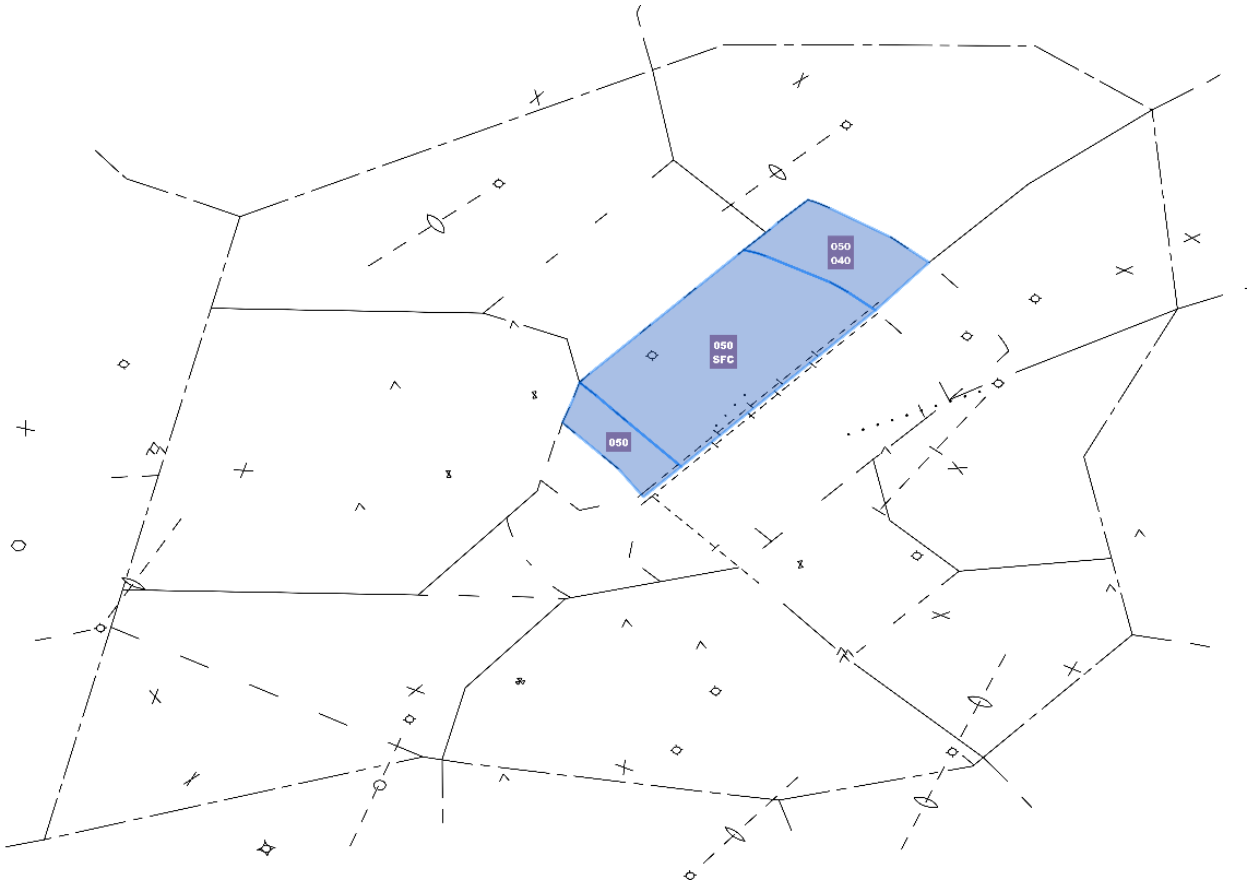
7–6–2. NARRATIVE

WFR is the final sector for Runway 5L in east operations and Runway 23R in west operations. WFR is generally fed arrival traffic from WAR.

7–6–3. AIRSPACE (EAST)



7–6–4. AIRSPACE (WEST)



7–6–5. PROCEDURES

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 or until visual separation is provided by the aircraft or the tower.

e. Unless visual separation is applied or coordination is affected, conduct simultaneous instrument approaches as follows:

1. RWY 23R - Normally intercept the localizer at 2,200 feet inside 10 DME (or DABKE) and 3,000 feet outside 10 DME (or DABKE), and 4,000 feet outside of MARBY.

2. RWY 5L - Normally intercept the localizer at 2,200 feet inside 10 DME (or BOULE) and 3,000 feet outside 10 DME (or BOULE), and 4,000 feet outside of CHWDR.

f. 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.

g. EFR (1E) will provide an arrival sequence when simultaneous visual or instrument approaches are in progress. WFR will sequence traffic reference EFR's provided traffic sequence.

h. Coordinate with tower prior to frequency change any aircraft that is planning to terminate the approach with anything other than a full stop landing (i.e. planned missed back to radar, option to remain in the tower pattern, etc.).

7–6–6. TOWERED AIRPORTS

RDU.

7–6–7. NON-TOWERED AIRPORTS

None.

INDEX

APPENDIX A. ADJACENT TERMINAL AIRSPACE

APPENDIX B. OVERLYING ZDC SECTORS